

# Critical Perspectives of Tele health and Artificial Intelligence in Evolution in Primary Healthcare Delivery

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#### **Abstract**

Utilization of artificial intelligence in industries, studies in the field of medicine and medicare have begun to implement its capabilities in handling and analysing data to telehealth platform. Challenges in the implementation of telemedicine, there has been a need to expand its capabilities and improve procedures to be specialized to solve specific problems specially accessibility availability affordability adaptability and accountability. Integration of medicare and government supported health schemes like Ayushman Bharat and of course, development of a maintenance and supply chain for equipment and appliances and serviceable material and medical management at the point of care with subsidized government supported service provider like Jan Aushadhi and GEM procurement system can enhance healthcare to the needy and make utilization of the healthcare schemes for larger population and common illnesses which are the precursor and roots of costly affairs and making the community morbid for want of care at early stage due to the reason of accessibility affordability availability. The model, aims to build on existing AB-PMJAY schemes to provide publicly funded health insurance cover of up to 500,000 Indian rupees per family per year to about 100 million families. Life style diseases are precursor of and full blown disease which aim to be covered under this scheme at terminal stage. Issue is to address through AI/CT of availability affordability accessibility and policies political commitment, leading to develop the full grown diseases responsible for morbidity and burden of diseases.

Keywords: Artificial Intelligence, Medicare, Tele-health, Telemedicine, Ayushman Bharat PMYAY

## 1. Introduction

Primary health care has always existed as it was the description of the point of first contact between patients and the health care system. The term "primary care" is thought to date back to about 1920, when the Dawson report was released in the United Kingdom. That report mentioned "Primary health care centres", intended to become the hub of regionalised services in that country. However, it was only in 1978 that WHO defined the concept "primary health care" as a strategy to reach the goal of "health for all by the year 2000". At the Alma Ata conference "primary health care" was defined as: "Essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community by means acceptable to them at a cost that the community and the country can afford to maintain at every stage of their development in a spirit of self-reliance and self-determination. Prof. J. De Maeseneer, M.D., Ph.D; The iconic "Alice in Wonderland" dialogue by Lewis Carroll is one of the best-known strategic thinking examples: Cheshire Puss... Can you tell me which way to go, please? A lot depends on where you want to go, "It depends a lot on where you want to go," I just don't care where... "Alice said. "So it

doesn't matter where you go," the cat said. Alice added as a clarification, as long as I get somewhere. Yeah, you're sure, the cat replied. The nature of a successful approach, namely the results to be accomplished and the directions, is very well represented by this dialogue. Planning includes the course and order of operations to achieve the goals and objectives. Strong management aims to provide the community with resources in an efficient, accessible, inclusive, and sustainable way. This can only be done if the vital service delivery tools, including human resources, financing, hardware, and process aspects of care delivery, are pulled together and carefully synchronized at the service delivery stage. In the study's separate healthcare chapters, essential management issues for measurement and preparation, treatment process management, human capital, group engagement, and knowledge management are discussed in the Planning, Human Resources, Alignment, and Reporting chapters. The goal is to get the men and women who make up a business together to create an efficient organization, taking into account people's well-being and working classes to do their utmost to accomplish their success (SS Khanka).

In a simplified but broader way, the WHO describes a health system as all operations whose primary purpose is to promote, restore or maintain health." In the debate on global well-being, the expression 'health sector' is commonly used (for example, health systems strengthening). "health care" simply blends two ambiguous concepts. "health" is the first one. health is a state of complete physical, mental and social well-being, not just the absence of disease and illness" according to the International Health Organisation (WHO). Healthcare has also been described as an important opportunity to "enable people to look for things that they can appreciate." There are only as many markers of well-being as there are meanings. This included birth life span, infant mortality (IMRs), the number of kids malnourished, the numbers of females with the body mass index (BMI) lesser than 18.5, quality-adjusted life years (QALYs), and disability-adjusted life years (DALYs). Similarly, scholars at Harvard University describe a health system as all healthcare institutions and players (e.g., physicians, nurses, hospitals, clinics, conventional healers, etc.); organizations that provide providers with professional feedback (e.g., training schools, pharmaceutical manufacturers); financial intermediaries, planners, and regulators that control, fund, and influence.

## 1.1 Condition of Primary Health Care in India

India's local health system's vulnerable condition is no mystery, especially in India's villages, where gaps in facilities and human capital are at a critical point. Government hospitals operate in very precarious situations, frequently breaking down to provide ill patients with the requisite health care. And private hospitals, which most people deem out of control. As we all know, most health metrics of population growth support India's growth as the world's most populous region, and it will soon surpass China. And that needs a massive demand in India for health services. On the list of the sickest nations, India ranks fifth. In India, approximately 32 percent of all deaths result from health-related diseases. According to global surveys of burn illnesses, India is on the well-being ranking of 154 out of 190 nations. The budget for health care, amid these weak figures, remains inadequate. With a marginal increase since independence, India spends approximately 2.4 percent of its GDP on health and 1.09 percent on public health. Thus we can say that the significant challenges in front of the Primary Health care system in India are

- Poor patient to doctor ratio
- Lack of Infrastructure
- Low public spending
- Low health cover for the rural population
- High out of the pocket expenditure
- Unequal distribution of Human Resources

## 1.2 Health Strategy Development

A mechanism that is not limited to the health industry is the value of treatment. Healthcare centres on the coordinated medical care of patients in the sense of Western medicine. This problem is experienced in an institutional environment by the use of medical technologies by health practitioners. However, healthcare is not always explicitly differentiated from other human life-enhancing practices and is not still respected above all for health development. Health practitioners do not see their objectives as a long-term target in improving health, but operating an organization is often a common goal quickly. In the pre-planning process for policy growth, the situational analysis represents an essential step. In particular, about the internal and external environment, it assesses the health profile of the population (which may be the focus community or target area of the health mechanism or service) and of the health system. The review should be carried out based on accessible and accurate health metrics and national-international human capital and health infrastructure criteria. Based on relevant guidelines, the essential purpose of this process is to define priority health conditions. Another fundamental goal is to include the data and knowledge required to set targets and priorities. During this point, the data and information collected relating to the following domains:

Internal and external climate (review of the goals and policies of fiscal, social and health) - SWOT analysis;

Health status and associated determinants (mortality and morbidity, injury, cancer incidence, life expectancy, indices of lifestyle, patterns, etc.);

Health system infrastructure (public/private institutions, access to health care, community coverage of facilities, health system patient traffic, etc.) - human, material, and financial resources.

A health system comprises all organizations, institutions and resources whose primary intent is to improve health. In most countries particularly India , the health system is recognized to include public, private and informal sectors . While the World Health Organization (WHO) emphasizes economic, fiscal and political management systems that underpin formally organized health services, it also recognizes the informal sector; this consists of self-help and care by families and communities, and the role of informal and traditional practitioners. Health systems are about more than patient care: they attend to why people become ill in the first place, and foster health-promoting environments, and

sound preventive practices. Implicit within the WHO approach is that nations must design and develop such integrated systems in accordance with their needs and resources.

An insightful study of low- and middle-income countries that achieve good health outcomes at modest cost has recently revealed four underlying determinants that drive successful health systems. These are (1) capacity: the key role of individuals and institutions in designing and implementing reforms; (2) continuity: the stability required for reforms to be implemented, and the institutional memory that prevents mistakes from being repeated; (3) catalysts: the ability to make use of windows of opportunity, and (4) contexts: policies relevant and appropriate to circumstances. Franklin White

## 2. Methods

## 2.1 Rationale of the Study

The Healthcare system is fundamental medical care based on relevant, clinically sound, and socially acceptable strategies and inventions which, through their full involvement at a price that the society and the nation could manage, have been produced commonly universally accessible to individuals and families in the community—paying to remain at all points of its growth in the spirit of self-reliance and self-determination. It is just a crucial component of both of the health systems around the world. It is the fundamental responsibility and primary concern and the overall social and economic development of the society. It will be the first level of communication with the healthcare system for patients, communities, and families, taking healthcare services as near as possible towards where employees are working, and the first part of an ongoing health care process. The cornerstone of the country's health system is primary health care. And sufficient facilities will help a nation meet sustainable development goals related to health. To treat a simple condition, which typically happens at a more considerable distance, most patients go immediately to the secondary health centre. This is attributed to the absence of primary health care in the places required. It helps increase awareness about viral infections, sanitation habits, and family planning, and patient expenses can be minimized by enhancing primary health care. Vital, necessary health facilities, since most illnesses are avoided and cured at the first stage, will reduce the nation's pressure.

A landmark in India was the Health Research Study and Development Committee, generally referred to as the Bhore Committee Report, 1946, from which modern health services and policies originated. The new public health services have been designed to recommend a three-tier health system to offer preventive and curative health care in rural and urban areas, place health professionals on the government payroll and reduce the demand for private physicians. This has been undertaken to ensure that primary care access is irrespective of individual socioeconomic situations. However, the lack of public health programs to offer affordable care has led to steady and incremental private health coverage growth in the concurrent development of personal health systems. Generally speaking, health care quality is characterized in two ways: technological quality and socio-cultural quality. Technical consistency refers to the effect accessible health care may have on a population's health status. Socio-cultural consistency tests the degree of service acceptability and the potential to satisfy the needs of patients.

- Principles set are as follow:
- Building healthy public policy
- Create supportive environments
- Strengthening community actions
- Developing personal skill
- Reorienting health services
- Demonstrating a commitment to health promotion

The public health practice's key theme is recurrent and must be readdressed by each new generation of public health professionals in a dialogue with the population they serve. Should health professionals be concerned with the fundamentals of health such as employment, housing transport, food, and nutrition, or should attention be restricted to individual risk factors for the disease? In this study, a health professional has to look after all the dimension of wellness of patient in the outpatient to achieve the desired goal

## 2.2 Literature Survey

The goal of universal health coverage (UHC) requires that everyone receive needed health services, and that families who get needed services do not suffer undue financial hardship. The Impact of primary care serves as the cornerstone for building a strong healthcare system that ensures positive health outcomes and health equity. In the past century, there has been a transition in healthcare from focusing on disease oriented aetiologies to examining the interacting influences of factors rooted in culture, race/ethnicity, policy, and environment. Such a transition called for person/family focused and community-oriented primary care services to be provided in a continuous and coordinated manner in order to meet the health needs of the population. Leiyu Shi Johns Hopkins Bloomberg School of Public Health. The principles agreed at Alma-Ata 30 years ago apply just as much now as they did then. "Health for all" by the year 2000 was not achieved. Factors have included insufficient political prioritisation of health, structural adjustment policies, poor governance, population growth, inadequate health systems, and scarce of resources. John Walley Lancet Alma-Ata Working Group. Gleaming steel and glass systems selling high-tech drugs to rich, largely urban Indians are at one end of the continuum. On the other hand, the destroyed outposts are desperately struggling to live up to their identities as sub-centres of health in the distant reaches of another India" waiting to be turned into shrines of health and wellness, a tale we hope to see unfold. Kasthuri 2018.

The Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Government of India, initiated the "Jan Aushadhi Scheme" in the entire district in November 2008 to accomplish the aim of making high-quality generic medicines affordable for everyone. "Jan Aushadhi Scheme "Pradhan Mantri Bhartiya Janaushadhi Pariyojana" (PMBJP). The scheme is being enforced by the Bureau of Pharma PSUs of India (BPPI), a licensed entity working under the administrative supervision of the Department of

Pharmaceutical Products of the Government of India's Ministry of Chemicals and Fertilizers. More than 1,250 medications and 204 surgical medicines and consumables are currently included in the scheme's medication basket in all main therapeutic areas, such as anti-infective, anti-allergic, anti-diabetic, cardiovascular, anti-cancer, gastrointestinal products, etc.. It makes accessible to all consumable drugs and good quality surgical products at reasonable prices, thereby reducing the expense of the pocket or customers/patients. (ii) To popularise generic medicines among the public and refute the common misconception that low or less effective inexpensive generics are of inferior quality. (iii) Build employment through the involvement of individual entrepreneurs in the opening of PMBJP Kendras (PMBJP, 2020). Taking inspiration from the success that Jan Aushadhi have had with private franchisees, the Health Ministry has decided to throw open AMRIT stores to private players in a bid to increase access to affordable drugs. The Affordable Medicines and Reliable Implants for Treatment (AMRIT) pharmacies, the first of which was opened at AIIMS, Delhi in 2015, sell expensive drugs such as those used for treating cancer and cardiovascular diseases at a cost that is 30-40 per cent cheaper. Unlike Jan Aushadhi stores, which are run by the Ministry of Chemicals and Fertilisers, AMRIT stores do not sell generic versions of drug but sell branded drugs. Government will call for private players to open AMRIT stores all over the country. That way, we can increase access without putting in government funds for the establishment expenditure. The World Health Organisation estimates that in 2015, an estimated 8 per cent of the Indian population had been pushed below the poverty line by high out-of-pocket payments for health care. The cost of medicines is estimated to comprise as much as 70 per cent of the total out-of-pocket expenditure that families have to make on healthcare. Abantika Ghosh Updated: January 20, 2019

Medical Council of India. Foundation Course for the Undergraduate Medical Education Program, 2019: This paper aims to assist institutions and teachers at the beginning of the MBBS course in initiating a one-month foundation course that will sensitize the new medical student with the requisite knowledge and skills that will enable him/her to acclimatize to a unique professional atmosphere that will be your vehicle for a lifetime medical career. (Chaturvedi & Gupta, 2019). How human resources management is essential to any health care system and how it can improve health care models. Challenges in the health care systems in Canada, the United States of America and various developing countries are examined, with suggestions for ways to overcome these problems through the proper implementation of human resources management practices. Ultimately all health care is delivered by people, so health care management can really be considered people management; this is where human resources professionals must make a positive contribution. Stefane M Kabene, Carole Orchard. "It's a start to get together. Staying together is progress, collaboration is Achievement'. India's healthcare industry is making remarkable strides in the future and is emerging as a significant operation field. Public health spending in 2004 was 5.2 percent of national GDP, according to a joint report by CH McKinsey (2006) (58.20 billion INR). Health spending in India in the period 2005-2009 (expressed in rupees) is expected to increase by 12 percent per year and grow to around 5.5 percent of GDP in 2009. Health care in India includes medical care and medical all forms of preventive care. It encompasses public sector health services and programs in the private sector (Abhinandan et al., 2018).

A Critical Assessment Competence-based learning stresses the qualities needed for successful medical practice, as opposed to the old education that concentrated on expertise, was structured in frameworks and fields, was time-based and included a summative assessment. It focuses on teaching the critical skills required in clinical practice for effectiveness and offers expectations and a performance assessment system. The fundamental aspect of any competency-based instruction is that it calculates the learning in a training program rather than time. It provides for proprietary, impartial comparisons and analyses from various sources. The technique has been used in multiple medical specialties for training. (Jacob 2019) It is the sum of the population's health status in which they live, families, and settlements. As one of the most daunting sectors and one of the leading service industries in India, the Indian health industry has arisen. In India, the health system consists of the public sector, the private sector, and an unregulated network of healthcare providers. In a relatively deregulated environment, the Indian health sector functions with limited oversight over the kinds of services to be rendered by whom, at what amount, and in what manner. The typical Indian pattern of lack of standardization and minimum conformity, while there are laws and guidelines, further complicates this. (Ramakrishnan Ramachandran)

The role of IT in health IT can increase the consistency, protection, and efficiency of health. The emphasis of this article is on extending IT's position in health knowledge. Technologies of connectivity have had a significant effect on well-being and the quality of health care. Various health systems have been shown to enhance organizational and logistical quality, clinical performance, reporting, and knowledge flow in the global climate, home care facilities, rural health centers, and major metropolitan hospitals, from AI enabled telemedicine to electronic health records. However, the acceptance and rewards have not been spread uniformly, and the reliability of performance has been challenging. The consistency, cost, performance, and capability of the health service must also be improved (Gulvani & Kulkarni, 2010).

Health insurance, in addition to helping people stay healthy and improving their health when they get sick, USA system of health insurance serves at least 6 functions to enable everyone to benefit from being insured. These functions, however, are not always compatible. Catastrophe, broadaccess for small usages, negotiating health services, enhancing and ensuring, the quality of clinician and hospitals nudging individual towards staying healthy, wealth transfer. Pranammya Dey, BS; Peter B. Bach,MD. Effect of health insurance program for the poor on out-of-pocket inpatient care cost \in India: evidence from a nationally representative cross-sectional survey In India, Out-of-pocket expenses accounts for about 62.6% of total health expenditure - one of the highest in the world. Lack of health insurance coverage and inadequate coverage are important reasons for high out of- pocket health expenditures. There are many Public Health Insurance Programs offered by the Government that cover the cost of hospitalization for the people below poverty line (BPL), but their coverage is still not complete. Shyamkumar Sriram\* and M. Mahmud Khan

Healthcare in India had already received a significant improvement over the past century. Today, with the launch of Yeshasvini, it had also managed to reach the heart of India, in rural India.. The presence of education sector collaborations and research institutes, including the pharmaceutical industry, will play an essential role in offering more accurate knowledge to ensure access to health

care(Sambala et al., 2010). Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) provides financial coverage related to the hospitalization of up to five lakh rupees for over 10 million poor and vulnerable families (approx. 50 crore beneficiaries) as part of the Comprehensive Health Vision of the Indian Government. With the ability to access public and private providers' services across the country, this ambitious mission helps protect recipient families throughout the life cycle from unforeseen health-related events. AB-vision PMJAY's central point is to ensure access to and deliver safe and quality health services to beneficiaries. Under AB-PMJAY, health services will be delivered via a network of public hospitals and contracted private providers. The government is dedicated to establishing a strategic partnership with suppliers to make the vision of AB-NHPM a reality. A fundamental aspect of this partnership is the involvement of healthcare providers and institutions. National Institutes of Excellence (NIE).

Despite the implementation of National Rural Health Mission over a period of nine years since 2005, the public health system in the country continues to face formidable challenges. In the context of plans for rolling out "Universal Health Care" in the country, this paper analyzes the social, economic, and political origins of the major challenges facing public hospitals in India. The roots of the present problems being faced by public hospitals. Overall development of public healthcare systems shall minimize the profit motive in medicine and can be expected to privilege application of preventive medical knowledge to reduce the overall cost of improving people's health. To strengthen the curative care in rural areas by creating facilities that will encourage doctors and other paramedical personnel to accept postings in rural areas, government cannot shy away from providing decent boarding and lodging facilities for them besides taking care of the family needs like schooling of the children. Vikas Bajpai Centre for Social Medicine and Community Health, JNU

Medicines are the vital components of therapeutics which are manufactured, distributed and sold to the patients under various regulations like Drugs and Cosmetics Act and Drug Price Control. The handlings of drugs at various stages are carried out by a team of healthcare provider's viz., Doctors, Pharmacist and Nurses. Healthcare professionals are registered and regulated by respective statutory bodies. The PCI is supposed to monitor, nurture and maintain standards of Pharmacy profession in India The branded medicines are expensive because the pharmaceutical industry invests lavishly in building a brand image for the product. For example Hematinic liquid orals are presented in an attractive bottle with an eye catching label packed in an expensive cartoon. The Hematinic brand image is built by giving advertisement in various medical journals and mass media. Further they are engrossed by the celebrities who pay huge money. For marketing Hematinic brand products the company provides free samples for prescribes. They also give attractive schemes for drug stores, for example buy 10 bottles-get 10 bottles free. The medical shops also behave like trade unions, putting the conditions for marketing the product in their territory. They also demand trade bonus in the form of gifts and compliments. The Pharma Company has to spend money to push the products all along the product supply chain. Above all this, the company has to make the substantial profits which add on the price of brand medicine. As per the international norms the generic medicine is the one, which is licensed to sell by the drug name instead of brand name and the expiry of the patent period. The market exclusivity of innovator brand ceases to be null and void of the expiry of the patent period. The price of the brand medicines are very high and insisted by the doctors to use costly medicines. Despite of being highly priced the branded medicines are able to sell in the market by advertising, endorsing the doctors for the kick back by the manufactures. The government of India has a promise to full fill to the patients to provide quality medicines at an affordable price and they also wanted to have direct control over the pricing of medicine in the open market to achieve its objective the Government of India revitalized Jan Aushadhi outlets with an intent to outreach generic medicine to the patients. Big opposition has come from Doctors and Pharmacists side as they are thinking negatively regarding the generic medicines and are deliberately not promoting the generic medicines. Vinuth Chikkamath and Anantha Naik Nagappa. Day care surgery is the standard of care for minor surgical procedures in developed countries. It is a fast growing and well accepted way of providing health care to patients. The main advantages of day care surgery are cost containment, early mobilization of the patient, less pain because of minimally invasive surgical techniques, early return of patient to their home environment resulting in reduced risk of cross infection in hospitals and less loss of pay due to early return to work, rapid recovery due to advancements in anaesthesia and surgical techniques and better use of resources. The disadvantages of day care surgery are that it cannot be done for all patients and for all surgical procedures as surgical fitness for day care procedures is demanding, unanticipated readmissions, need for more operating rooms and increased skill among health staffs. Day care surgery has increased now-a-days due to the advancement in surgical as well as anaesthesia techniques Though, day care surgery has become the standard of care for inguinal hernia patients in developed countries, various factors like financial constraints in developing a separate day care unit, insufficient primary health care facility and patient's psychosocial factors preclude successful establishment of day care surgery in developing countries. This study was conducted to analyse the factors that affect acceptance of day care surgery by patients with inguinal hernia in a tertiary care centre in Southern India. Dr. TP Elamurugan, Assistant Professor, Department of Surgery, Jipmer,

# 2.3 The Objectives of the Study

A-To assess the opportunities and the role of private public partnership in network pharmacy system, health insurance and government supported insurance schemes with existing practices primarily in primary healthcare. B-To analyze the role of network community pharmacy system in relation to life style diseases. C-To suggest and formulate the policies to upgrade services in the primary healthcare sector with specific thrust on infrastructure and human resource development and AI enabled telemedicine and smart medical card

## 2.4 Research Methodology

The methodology includes primary care in medical college hospital /district hospitals / CHC / PHC / PHC / SADs in all public health sectors due to the inadequate referral mechanism and health availability disparities. There were two parts to this research method. The first part concerned the collection, analysis, and processing of all needed data. It involved compiling and their causes and solutions, a comprehensive list of problems affecting the public health sector in general, and specific primary care. It was made up of the following steps, in general terms:Study the literature available to produce a preliminary list of problems, their causes, and possible solutions.Identify the problems

observed in the outpatient and ASHA of the health system Conduct primary research to verify problems, probable causes, and solutions, as identified from secondary sources, and if applicable, to identify new issues in the process. Department of Pharmaceuticals, the Jan Aushadhi Scheme (JAS) (Public Medicine Scheme) initiated by the Government of India (GOI) seemed a powerful intervention against the unjustifiable pricing of medicines by private pharmaceutical industry to make the generic medicines available at affordable prices. Bureau of Pharma Sector Undertakings (BPSU) of India, , was entrusted the duty to govern the operation of JAS. The scheme was implemented to improve the quality of affordable health care in the nation. Under the Drug Price Control Order, 1995, National Pharmaceutical Pricing Authority controls the maximum retail prices of medicines and their formulations. The pharmaceutical industry of India produces quality generic medicines at reasonable prices. Hence, Indian generics find way to many countries. Since the marginalized populations of India are not able to afford many branded medicines, there is an urgent need for making the cheaper generics available to Indians in the best interest of populations. Identify existing public health sector drug procurement, supply, efficacy, and reasonableness, accessibility of Pradhan Mantri Bharatya Janaushadi Pariyojna (PMBJP) formerly (PMJAK) to reach district hospital/CHC/PHC and cluster centres through secondary research in urban and semi-urban areas. This would decrease the ambulatory OOPE shared by most outpatient medicines and increase satisfaction. Identify existing merits and shortcomings with the health sector penetration of the Ayushman Bharat scheme (AB-PMJAY) and explore the possibilities of accessibility of this insurance scheme and other IRDA/TPA-controlled health insurance schemes; its coverage is accessible for chronic diseases such as chemotherapy, etc. through daycare and outpatient treatment. The second and final part of the study involved the generation of all other inputs and the formulation of strategies by the Government of Uttarakhand and gaps in these studies according to the current health policy of the Indian Government and NITI Ayog studies and studies. In this section, the steps performed were: Analyze current and anticipated demand for health services and recognize gaps in expected supply. Conduct an environmental analysis the sector's internal strengths and weaknesses and external environment opportunities and threats (SWOT), insofar as they have influenced the formulation of strategies. Formulate strategies that take advantage of strengths and possibilities while neutralizing internal weaknesses and external threats through consolidation and synergies in different resources required in ambulatory settings. Evaluation of approaches through internal controls and external validation.

## 2.5 Research Design & Sampling Design

The study to be conducted in two phases to identify and measure the impact of health care strategies on the health services, especially outpatient and daycare services of the public health system in Uttarakhand. The second questionnaire was based on evaluating the health care services of the health systems. Depending on the interviewee's availability and timeframe, the research will be conducted through random sampling with different sub-approaches. The selection of a sample in the various stages is discussed below: Samples from the first stage of the sample (selection of 3-4 districts from each region of Kumaon and Garhwal. Of these state districts, three sections were selected—second-stage sampling (PHC selection). The primary sample will also be collected from some HODs or physicians from the prior department of 02 medical schools and AIIMS and MehantIndresh hospital. In

the current study in which Ayushman Bharat takes place nationwide, health insurance is a corrective measure. However, it may be in a different vocabulary in the state according to a policy decision, with the limited scope of health benefits for hospitalized patients, therefore limited to the target population to be admitted or manipulated to be admitted for the benefit of some influential people of the time. Besides, IRDA, the highest health insurance supervisor, has a limited role because it does not have a TPA model. Therefore, the beneficiaries' hands are still tight in medical negligence or irregularities in the billing system. The primary sample will also be collected from the IRDA-approved Ayushman Bharat administration and TPAs wherever accessible, which will ultimately review health insurance as a national socioeconomic pension that will gradually cover outpatient care and day-care procedures. Primary and secondary data will accomplish the purpose and objectives of the analysis. Primary data is obtained from HODs/MS/Asst by a questionnaire and some interviews. MS and Ayushman Bharat and under IRDA, TPAs. For the research, two sets of questionnaires were created, a questionnaire designed for hospitals to define and evaluate the health and management policy of Ayushman Bharat, and TPAs used by health systems in Uttarakhand state under IRDA. The second questionnaire was meant to measure the quality of patient health care rendered by public and private hospitals in the state (comparison objective). In today's disaster prevention, ASHAs have played a significant role; a separate community of questioners would be asking about the specific issues confronting beneficiaries in this field. The study emphasis was accomplished by secondary data, which involves analyzing current data and literature accessible from governmental and non-governmental organizations, journals, magazines, studies, blogs, etc. The final review will be carried out based on assumptions after collecting the required data on the current conditions.

## 3. Results

The most basic principle underlining the solutions is that food, hygiene, water, sanitation, and education access, the key variables affecting health outcomes, must be constitutionally assured, not for benefit. Moreover, only those steps should be recognized as solutions that mainly address patients' epidemiological needs, rather than as measures that fulfil the needs of health care professionals. Information technology (IT) has the ability to increase healthcare quality, protection and performance. It can enhance treatment by increasing the capacity of physicians, nurses, nursing technicians, providing affordable medicines and day-care procedures and others to access and use reliable knowledge about their patients easily. Performance and quality of treatment can be enhanced by patients' ability to access information to help treat their illness and communicate with the health system. IT/AI allows healthcare providers to gather electronically, archive, retrieve, and transmit information. Telehealth is the provision of health-related resources and information through telecommunication technology to promote medical care, administrative operations, health education, health services, and remote communication. data, where the key factors affecting health outcomes are food, health, water, sanitation The medical capacity for undergraduates grew by 54 percent between 2009 and 2013, and the number of postgraduate medical vacancies increased by 74 percent. When we look at these, and education, it should be assumed as a matter of rule, not for benefit, but when we look at the reality of these public health organizations (HCO), District Hospital/CHC, PHC, SAD, ANM, and Anganbadi centre face the issue of deprivation, inefficiency, and unavailability of services participation of the Society and various water and sanitation services Samiti, Food, Nutrition, and MCH Samiti, Samiti School of Health Care, in particular Rogi Kalyan Samiti, should be reinforced by the fair and efficient intentional laws and regulations for the professional work of these Samiti or committees. It is also possible to respond to the concept of creating an equitable and synergistic solution through the structural incorporation of the PPP model and the convergence of the human capital available and funding for logistics and information technology, primary health care in an outpatient clinic, and day-care centre.

## 4. Discussion

There is a saying "The customer is God" . However, few occupational health services focus on client satisfaction. Client satisfaction can be defined as client awareness of care received in a timely fashion and of the many variables in the environment contributing to recovery . Service quality can be determined by the extent of discrepancy between client expectations, or desires, and their perceptions of services they received. The goal of universal health coverage (UHC) requires that everyone receive needed health services, and that families who get needed services do not suffer undue financial hardship. Tracking progress towards UHC requires measurement of both these dimensions, and a way of trading them off against one another. The present study ties to fill this gap by giving an ample scope to determine and understand healthcare outcome emphasizing availability accessibility affordability and accountability issues to meet universal health Coverage UHC under the declaration of Alma Ata.

There are limited research done in a bottom up way of thinking in healthcare where primary healthcare can be reinforced by consolidation and synergistic approaches with IT enabled services for monitoring and accessibility. Health insurance sector which would be the future of universal health coverage UHC in India at large and Uttarakhand particularly may be due to our mind set of free medicare supported by the government thus the penetration of insurance in India is still faraway as thought to be. Flagship insurance scheme by the government and also supported by the IRDA with positive political motive, AB-PMJAY (Ayushman Bharat) has made significant dent in to the people hardship to access healthcare specially major illness and hospitalization in need. But criticality of scheme is that lives insured are increasing but utilization is limited to the use of cluster of beneficiaries limited to chronic illness. But "When the soul hungers, even bitter things taste sweet" a new unexplored paradigm in this research is proposed where a portion of premium from the coverage under AB-PMJAY can be utilized for primary healthcare services to address the life style disease burden at this primary care thus not to let grow them a complete diseases ought to be treated under the scheme thus utilization spectrum of spread will increase among the community.

#### 5. Conclusion

Healthcare has become one of India's largest sector, both in terms of revenue and employment. Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment. The Indian healthcare sector is growing at a brisk pace due to its strengthening coverage, services and increasing expenditure by public as well private players. The public—private partnership (PPP), healthcare insurance (Medicare) with discounted generic pharmaceutical and leadership synergy (LS) approach is required to enhance ownership and

accountability of health and social care initiatives to meet MDG of primary healthcare. The idea of PPP and consolidation of services in health in the developing nations was to improve health outcomes of the population. The healthcare market can increase three-fold to Rs. 8.6 trillion (kharab) by 2022. In Budget 2021, India's public expenditure on healthcare stood at 1.2% as a percentage of the GDP. According to a joint report of McKinsey (2006), in 2004 national healthcare spending equalled 5.2 per cent of national GDP Healthcare in India covers not merely areas of providing medical care, but also all aspects of preventive care. Health financing is fragmented at all three levels ---revenue sources, health insurance (financial risk pooling), and strategic purchasing (how funds are used to set incentives for service providers to maximize efficiency, responsiveness, and quality in the health service provider market).

There are high levels offragmentation in the sources of revenues, with most health expenditure (about 62 per cent) coming directly from households, out-of-pocket. Government spending on healthcare, roughly 1.2 per cent of GDP (among the lowest in the world for low-middle-income countries), is also fragmented among union and state levels. The high level of out-of-pocket expenditure is also a clear sign of the lack of risk pooling especially among the poor and near poor means that they act as their own household-level insurer with devastating effects on restrictions for demanding services when needed and impoverishment due to illness

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