International Journal of Engineering Research & Management Technology
ISSN: 2348-4039
January-February-2020 Volume 7, Issue-1
Email: editor@ijermt.org www.ijermt.org

AN ANALYSIS OF THE ALLOCATION OF FUNDS TOWARDS HEALTHCARE IN INDIA

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ABSTRACT

The healthcare system in India is undergoing a transformation with the aim of improving coverage and implementation. Nevertheless, the healthcare system continues to confront numerous obstacles, some of which have yet to be resolved. The purpose of this review is to provide an overview of the historical and current healthcare situations in India, as well as the policies and endeavors that have been undertaken to attain universal health coverage (UHC).India is a nation undergoing accelerated development, boasting a population exceeding 1.4 billion individuals. Despite substantial advancements in healthcare accessibility, the issue of financing healthcare for all continues to be a formidable barrier. This article aims to examine the present condition of health financing in India, including an analysis of the obstacles encountered and potential avenues for enhancement. Healthcare in India is funded via a hybrid system comprising both public and private contributions. Particularly for those who cannot afford private healthcare, the provision of healthcare services to the majority of the population falls under the purview of the public sector. Conversely, the private sector accommodates individuals with the financial means to procure healthcare services. Notwithstanding the endeavors of the government to augment healthcare financing, India's public health expenditure continues to be relatively modest in comparison to other nations of comparable economic development. The government allocated a mere 1.28% of its GDP to health expenditures during the 2012-2017 fiscal year, which is considerably less than the worldwide average of 6%. Insufficient financial resources have led to substandard healthcare infrastructure, a scarcity of healthcare personnel, and restricted availability of critical medications and treatments. Consequently, India encounters substantial obstacles in its endeavor to attain universal health coverage and tackle the pervasive burden of disease within its borders.

KEY WORDS; India, equity, access, healthcare, and health insurance.

INTRODUCTION

The Indian healthcare system is undergoing a substantial transformation due to a combination of factors including increased public income and health awareness, simplifying bureaucratic processes, liberalizing prices, and implementing private healthcare funding. [1] Priority number one on the 2009 National Health Policy was health as a fundamental entitlement [2]. The provision of healthcare services by Indian states is regulated by the National Health Policy, which is established by the central government of India [3]. The Indian healthcare system encounters several challenges stemming from the proliferation of the nuclear family structure. These include escalated healthcare expenditures, an expanding need for long-term care and nursing services for the elderly, a significant financial strain on impoverished populations, a surge in the prevalence of new diseases, and a neglect of public health responsibilities attributable to inadequate healthcare sector funding. Notwithstanding its achievement of the physician-to-population ratio of 1:1000, as advocated by the World Health Organization (WHO) in 2018 [4], India's rural and urban regions continue to be unequally supplied with healthcare professionals [5]. Health insurance has emerged as a feasible financial alternative in India to mitigate out-of-pocket expenses, in contrast to developed nations [1]. Conversely, the overall health insurance coverage among the populace of India is a meager 37% [3].

This article provides an analysis of the present state of healthcare in India, focusing on universal health coverage (UHC), healthcare schemes, and the allocation of funds for various public sector initiatives. This paper undertakes an examination of health expenditure in both the public and private sectors of India, with a particular focus on out-of-pocket expenditure (OOPE). Additionally, it explores a range of recent initiatives implemented by the Indian government in an effort to enhance the delivery of healthcare. Then, recent strategies and proposals put forth by the Indian government to enhance the delivery and coverage of healthcare.

RESEARCH METHODOLOGY

The information was obtained from various databases maintained by the Government of India, including the Health Sector Financing by Centre and States/Union Territories in India, Ayushman Bharat – National Health Protection Mission, National Health Authority, Ministry of Health and Family Welfare, and Department of Health Research. Additionally, pertinent articles from PubMed were consulted for the collection of data. Equity, access, healthcare, health insurance, health economic evaluation, health technology assessment (HTA), and India were the search terms employed. The results are presented utilizing data from scholarly articles published within the past ten to twelve years; the databases were last queried in May 2017. These sources have been consulted for the data analysis.

RESULTS AND DISCUSION

Health economy

The healthcare industry in India, valued at $41 billion, is experiencing growth as a result of several factors: a reduction in infant mortality rates, an increase in life expectancy, a rising population, the government's focus on disease eradication, increased disposable income, and consequently, the capacity to procure private healthcare facilities [6,7]. Between 2008 and 2015, public health expenditures in India, including those of the central and state governments, remained at an approximate 1.3% level of GDP. From 2015 to 2016–17, these expenditures experienced a slight increase, reaching 1.4%. It was proposed in the 2017 National Health Policy to raise this percentage to 2.5 percent by 2025. Including private sector expenditures, the total health expenditure is estimated to be 3.9% of the gross domestic product [8]. The public sector finances approximately one-third (30%) of the total health expenditures; this is a relatively modest proportion when compared to the corresponding figures for developed and developing nations [8]. This means that the financial burden of healthcare is borne by the individual consumer [8].

The budget estimate for the Department of Health and Family Welfare for 2017–22 is USD 9732.214 million, an increase from the revised estimate of USD 1552.096 million in 2006–07. The Compound Annual Growth Rate (CAGR), which represents the annual growth rate over a specified time period, has been 13% during this time period. According to revised estimates, the Department is projected to incur a 21% deficit in 2012–21. In its entirety, the Ministry is anticipated to incur supplementary expenditures amounting to USD 2159,907 million during the revised phase of 2012–21. The COVID-19 emergency response and health system preparedness program, as well as the COVID-19 vaccination for frontline workers and healthcare personnel, accounted for the expenditure of USD 1941.417 million [9]. (At the time of the survey, 1 USD was equivalent to INR 73.23.)

OOPE is established at the point of service by households themselves. This suggests that the level of financial safeguards accessible to households in relation to healthcare expenditures is significantly restricted [10]. Pharmaceutical products account for the largest proportion (52%) of OOPE [8]. The provision of allopathic medications comprises the majority of public health expenditures in both urban and rural regions (38.01% and 26.29%, respectively) [11]. A total of 19% in urban areas and 14% in rural areas are covered by any health

expenditure support insurance scheme. Annually, approximately 7% of the populace falls below the poverty line as a result of elevated OOPE [8]. In the current pandemic, this proportion has escalated to 28% [12].

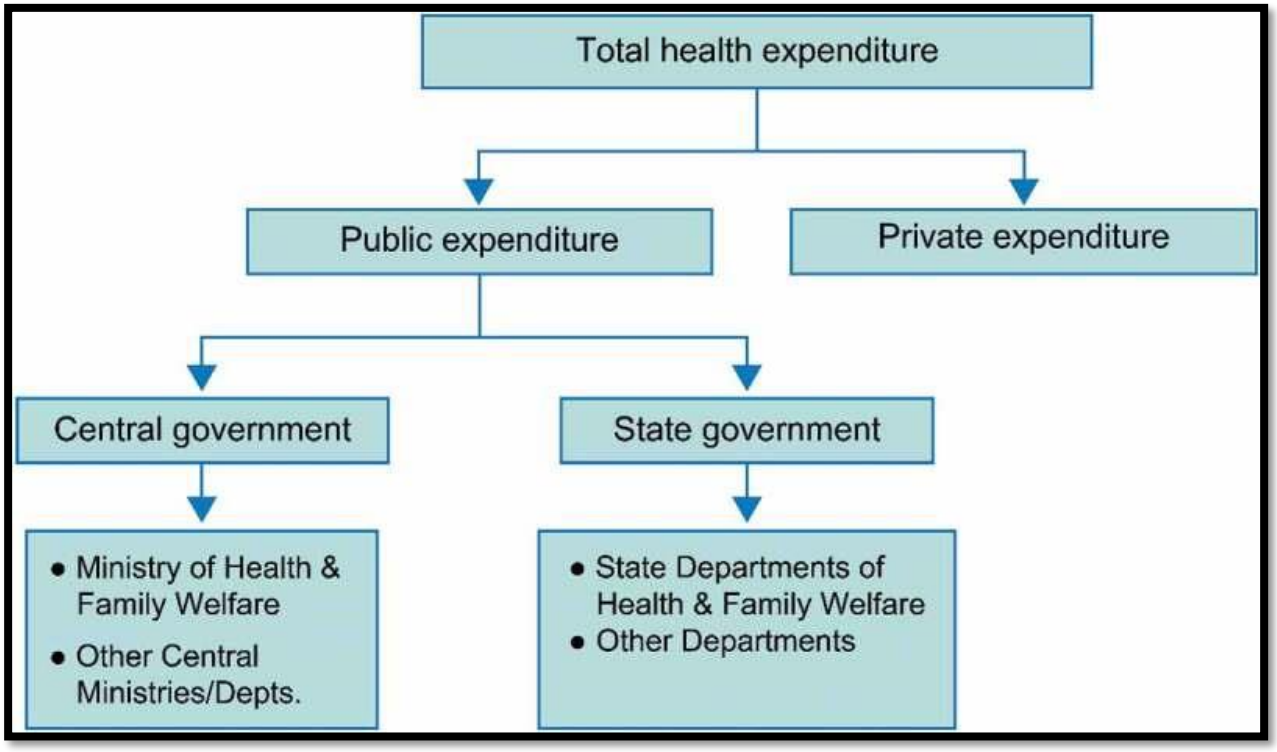

Figure-1: Different Segments of Out-of-Pocket Expenditure

HEALTH INSURANCE: IMPLEMENTED HEALTH INSURANCE SCHEMES IN INDIA

In India, health insurance schemes debuted with the Employees State Insurance Scheme (ESIS, 1952) and the Central Government Health Scheme (CGHS, 1954) in the early 1950s. The Insurance Regulatory and Development Authority (IRDA) Bill, which was passed in December 1999, established a regulatory body to oversee the insurance sector in India. Prior to 2007, India had only three health insurance programs: CGHS, PHI (Public Health Insurance), ESIS, and CGHS [13]. Since then, the nation has been inundated with an abundance of insurance programs. A transformation occurred in the health insurance landscape of the nation when state governments introduced health insurance programs that specifically catered to individuals living below the poverty line or earning less than the poverty line [13].

Currently, a multitude of public health insurance schemes are accessible to the general public. These include the Employees' State Insurance Scheme (1948), the CGHS (1954), the Private Insurance – Mediclaim (1986),

the Ex-Servicemen Contributory Health Scheme (2003), the Universal Health Insurance scheme (UHIS) (2003), the Health Insurance Scheme for Handloom Weavers (2005), the Shilpi Swasthya Yojana (2006), the RashtriyaSwasthya Bima Yojana (RSBY) (2008), and the Niramaya health insurance scheme, which was subsequently renamed Swavlamban He PM-RSSM stands for RashtriyaSwasthya Suraksha Mission (2018) [14].

The following are current health insurance schemes in place: (1) Private, for-profit health insurance schemes or voluntary health insurance schemes. Private insurance premiums are collected from purchasers of private insurance. In contrast, the General Insurance Corporation (GIC) and its four subsidiary companies—National Insurance Corporation, Oriental Insurance Company, New India Assurance Company, and United Insurance Company—offer voluntary schemes in the public sector. United Insurance Company, which has offered Mediclaim since 1986, is primarily accessible to the middle class due to the exorbitant premiums. (2) ESIS and CGHS are examples of mandatory health insurance programs or government-run programs; they provide coverage for factory workers and central government employees (including retirees and specific autonomous semi-government organizations), respectively. (3) Community-based health insurance and insurance provided by non-governmental organizations (NGOs) are financed through charitable trusts or NGOs through the collection of nominal premiums; the remaining funds come from government grants, patient contributions, and donations. (4) Employers offer employer-based schemes to their personnel, which may consist of medical allowances, lump-sum payments, reimbursement for health expenditures, or coverage through group health insurance schemes [1]. Launched in September 2018, the 'Ayushman Bharat' health protection scheme will provide coverage of up to five lakh rupees per household for over fifty crore beneficiaries and over ten crore impoverished families. The premium cost and entitlement, as determined by the Socioeconomic and Caste Census (SECC) database, shall be divided equally between the central and state administrations. It is anticipated that nearly 40% of the population, including the poorest and most vulnerable segments, will be covered by PMJAY, which will substantially reduce OOPE [15].

The AB-PMJAY status as of November 26, 2019 is detailed below [16].

- 32 States/UTs are implementing PM-JAY at this time.
- Hospital admissions amounted to 0.191% of the total; • Authorized funding for admissions was $2,394.51,000,000; • Embaneled hospitals numbered 24,653 (public:private ratio: 54:46);1.734% of E-

Cards were issued; 0.12% of portability cases were processed; 14% of beneficiaries were verified per minute; 14 hospital admissions occurred each minute;

- Each day, eight institutions are empaneled.

Nevertheless, the execution of Ayushman Bharat, the most extensive publicly funded health insurance initiative globally, is beset by a number of obstacles: ensuring the delivery of superior healthcare, exorbitant service costs, inadequate beneficiary knowledge, safeguarding data integrity and confidentiality, and enhancing the capabilities of the healthcare workforce. The Government of India has issued a "call to action" to the Indian startup community (Startup India) [17] in an effort to surmount these obstacles.

Healthcare regulation

In India, present-day health systems and policies have undergone significant development since the Bhore Committee Report of 1946, which established the groundwork for a public healthcare (PHC) system consisting of three tiers: community centers, primary centers, and subcenters. The initial objective of this initiative was to promote fair and equal access to primary healthcare. Nevertheless, the inadequate capabilities of PHC systems in India led to the concurrent development of the private healthcare sector [18].

At present, the healthcare system is supervised by significant public stakeholders, including state administrations, local municipal bodies, and the Ministry of Health and Family Welfare. The oversight of healthcare delivery in states is carried out by the Department of Health and Family Welfare and a specialized Directorate of Health Services [3]. As shown in Figures 2 and 3 [3], private sector regulation is ambiguous, with multiple agencies under various ministries having overlapping jurisdictions over the private healthcare sector.

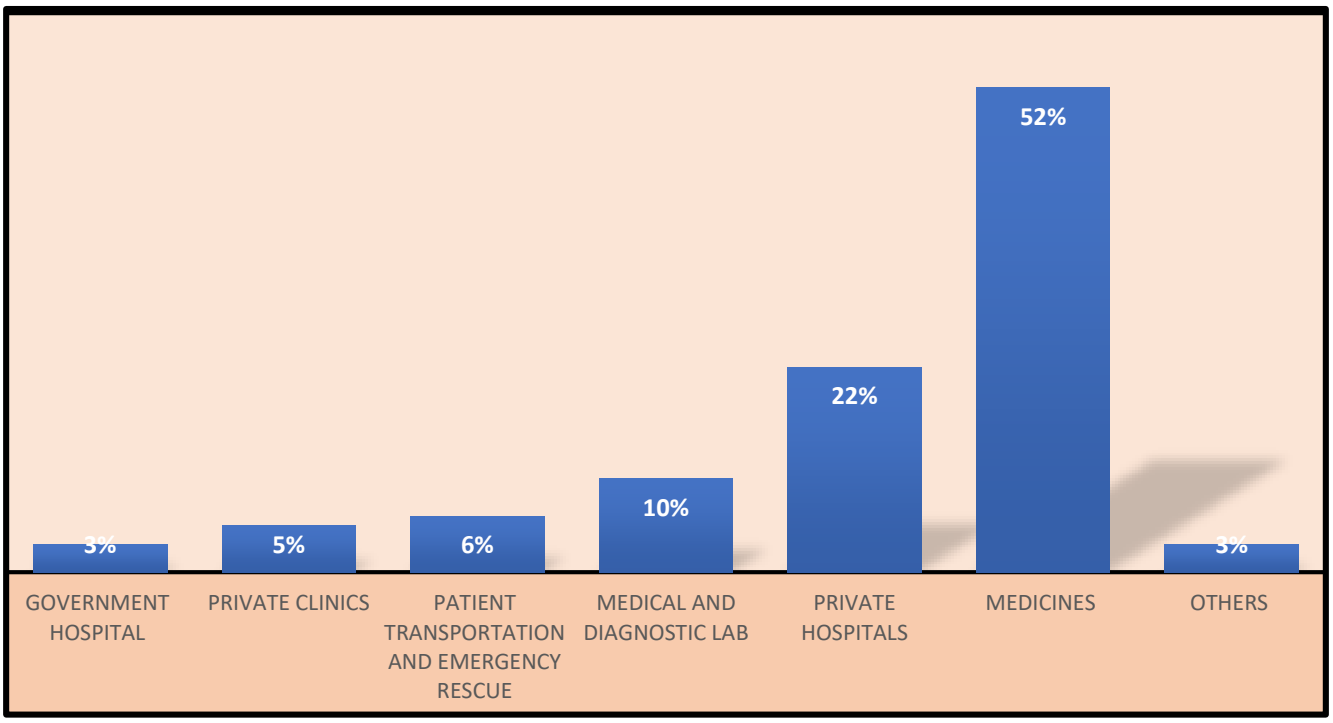

Figure-2 The structure of healthcare in India is organized.

The Indian healthcare sector is structured into distinct hierarchical levels, namely the national, state, district, and block levels. A clear delineation of the information flow and reporting structure has been established between the various levels and their corresponding departments [3].

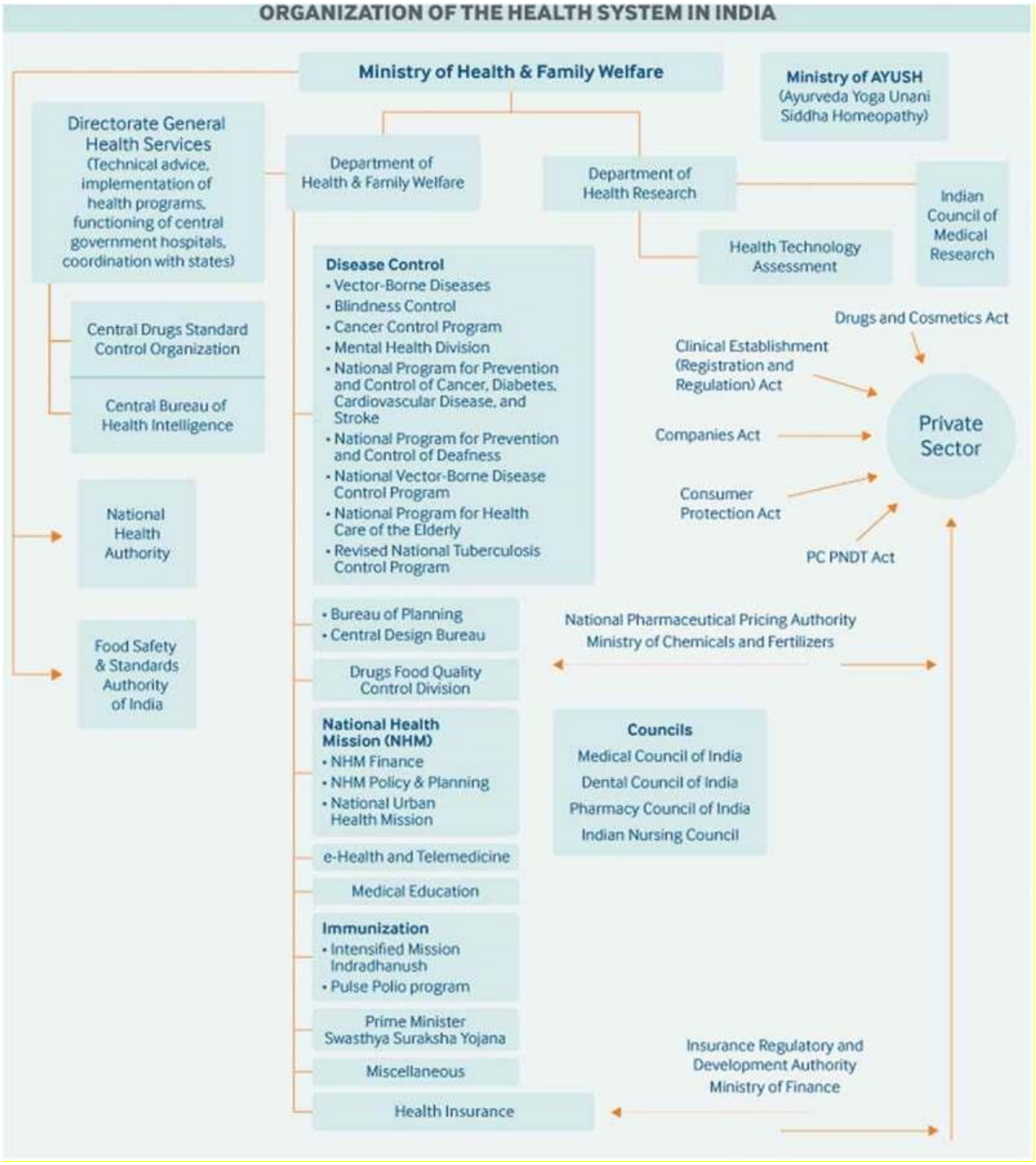

Figure-3 Organization of health system in india

HEALTHCARE DELIVERY SYSTEM

PUBLIC SECTOR

The three pillars of the government healthcare system are primary, secondary, and tertiary facilities, which provide a variety of medical interventions, including preventive care, active treatment, and secondary care. Primary and community health institutions in India attend to the healthcare requirements of the rural populace. By means of a subcenter, the primary healthcare system is linked to the community. Local governments have an obligation to maintain community health centers. These facilities provide medical services to between 80,000 and 120,000 individuals [3].

At this time, community healthcare workers consist of Anganwadi workers (AWW), Accredited Social Health Activists (ASHA), and Auxiliary Nurse Midwives (ANM) program participants. The Ministry of Health and Family Welfare (MoHFW) initiated the ASHA, ANM, and AWW programs with the objective of advancing child development services via the Integrated Child Development Service (ICDS). As well as delivering healthcare services at subcenters, ANMs travel to villages to receive assistance from AWW and ASHA personnel. The AWWs and ASHA employees perform a variety of activities pertaining to maternal and child health exclusively in their villages; when necessary, ASHA employees refer patients to the subcenter. Approximately 857,000 ASHA employees, 208,000 ANMs, and 1.2 million AWWs operate their own payment and oversight systems [19].

PRIVATE SECTOR

Private healthcare in India continues to be primarily unregulated. Health services have been rendered by various entities, including sole proprietorships, modest nursing homes, and expansive hospital chains. Recent years have witnessed an unprecedented surge in the growth of the private hospital industry. Private hospitals are also essential to government-sponsored health initiatives as they function as components of public-private partnerships. Private hospitals accounted for approximately 60% of inpatient care and 80% of outpatient care in 2016 [20].

ECONOMIC EVALUATION OF HEALTH AND MEDICINE

In order to maximize health benefits and ensure the most effective utilization of available resources, decision-makers obtain information from health economic studies. In order to ensure the production of consistent evidence across multiple economic evaluation studies, it is necessary to employ a structured economic

evaluation model [21]. In contrast, health technology assessment (HTA), a methodical economic framework for evaluating health, was not established in India until recently. This lack of HTA was due to a number of obstacles, including inadequate budget allocation, dearth of professional experts, ineffective reporting system, and absence of a national health service [21]. The implementation of HTA in India is in its nascent phases in 2012 as a result of ambiguous guidelines [22].

HTA and Medical Technology Assessment Board (MTAB) in India

In the Indian context, where budgetary constraints are particularly significant, health technology assessment, the international gold standard that provides a broad template for comparative analyses of cost, safety, clinical effectiveness, and equity, can be used to determine whether a given intervention is a cost-effective investment. Currently, under the auspices of MoHFW, the Department of Health Research (DHR) is in the process of establishing an MTAB that will serve as the focal agency for HTA activities in India [23].

When a new vaccine is being introduced into the National Immunization Program (NIP), HTAs are especially beneficial. Based on the findings of a survey, the practical implementation of HTA to evaluate the cost-effectiveness of novel vaccines is possible in the majority of nations. For instance, regarding the pneumococcal vaccine, 57.1% of the countries have established a national HTA agency, and 78.6% of the countries have access to national data sources for assessing the cost of diseases associated with S. pneumonia [24].

As the Government of India recognised the need for a dedicated body to evaluate the cost-effectiveness and suitability of health technologies in India and to plan and implement healthcare policies in the country [25], the MTAB was established. This will benefit India's long-term advancement towards universal health coverage (UHC), which requires the prudent and logical allocation of resources [23]. Proposed is a multi-tier architecture for the operation of MTAB. The MTAB will be situated atop the secretariat, with a technical appraisal committee (TAC) positioned in the middle. The ultimate determination will be rendered by the MTAB and subsequently submitted to the MoHFW for its endorsement [23]. As a method to establish a resilient HTA system [25], the DHR/MoHFW has delineated various stages of the MTAB: strategic planning, advocacy and engagement, political engagement, training, research, capacity-building, and HTA demonstration.

The establishment of HTA in India is accompanied by a number of obstacles, including the following: (1) difficulty locating human resources qualified to conduct the relevant HTAs for which MTAB plans to conduct an online training course and a series of training programs; (2) difficulty in maintaining technical sanctity and

consistency in methodology; (3) inadequate quality and availability of data due to India's inadequate data infrastructure; and (4) challenges pertaining to ethics and system transparency. The purpose of the MTAB is to provide national guidance on health financing in the public sector [23].

UHC in India

The UHC seeks to guarantee universal access to healthcare services, irrespective of financial constraints, for all individuals, in all locations. The WHO identified four critical financing strategies in order to attain universal health coverage (UHC): augmenting government expenditures allocated to health, enhancing the efficiency of taxation, increasing development assistance for health, and fostering innovation in health financing [26].

Health financing can be improved through increased efficiency and optimal allocation of health-related expenditure, as well as by increasing the tax-to-GDP ratio. In accordance with the National Health Policy of 2017, government health expenditures were to increase to 2.5% of GDP by 2025, state health expenditures were to reach >8% of their respective budgets by 2012, and the proportion of households confronting catastrophic health expenditures was to decrease by 25% by 2025 [27]. In addition, the 2018 Union Budget declared the inception of the Ayushman Bharat initiative [27]. The MoHFW initiated the National Rural Health Mission (NRHM), which was subsequently renamed the National Health Mission (NHM), with the aim of tackling health service administration. Mission Indradhanush, RashtriyaSwasthya Bima Yojana (RSBY), and Janani Suraksha Yojana are additional significant endeavors that aim to furnish impoverished households with health insurance as a means of financial risk protection. In order to address OOPE and achieve UHC, the National Health Policy (NHP) seeks to provide affordable, high-quality health services [26]. The government's dedication to mitigating OOPE is further exemplified through the implementation of the Pradhan Mantri Jan AushadhiPariyojana and the Affordable Medicines and Reliable Implants for Treatment schemes [27].

The following are additional initiatives undertaken by the government to implement UHC in India: (i) The conversion of subcenters into health and wellness centers (H&WC); (ii) The integration of Ayurveda, Unani, yoga, and homeopathy practitioners into the provision of primary healthcare; (iii) Emphasis on sanitation and hygiene (Swachh Bharat Abhiyan); (iii) Efforts to increase immunization coverage (Mission Indradhanush Kavach); (iv) The Maternal Death Surveillance Response program; and (v) The Labour room Quality Improvement Initiative (LaQshya program) All of these initiatives demonstrate India's steadfast dedication to the realization of universal health coverage [27].

The advancement of the healthcare infrastructure in India has lagged behind the country's economic expansion. Additionally, India has not performed well on health, equity, and quality indices [28]. Healthcare expenditures must be increased by the government in order to reduce the impact of OOPE [29]. In India, healthcare expenditures comprise a comparatively smaller proportion of total government spending (2.9%) than in countries including the United States (18.9%), Germany (17.3%), Japan (17.2%), the United Kingdom (15.9%), and China (10.1%). Further, the central government's contribution to the overall health expenditure in India amounts to a mere 17.3%. This is lower than that of the United States (44.7%), Japan (81.3%), Germany (76.9%), the United Kingdom (86.3%), and China (38%). According to these numbers, private health expenditures in India surpass government expenditures, which constitute the majority of OOPE, in comparison to other nations [1].

Private entities, rather than the public sector, provide a substantial portion of ambulatory services in countries classified as low-income and middle-income. Illustratively, the private sector caters to over 90% of diarrhea-affected children in India, whereas in Vietnam it handles 60% of all outpatient contacts [30]. Therefore, efforts must be made to increase government expenditure on healthcare services provided by the public sector in India.

An examination of the healthcare systems of developed nations, such as the United States, and India, reveals a preference for the private sector in both countries. The involvement of the United States government in healthcare, ambulatory care, and assessments of care utilization and appropriateness is significant. The United States, in comparison to India, has a greater expenditure per capita on healthcare, a lower OOPE, and greater accessibility to private health insurance with extensive coverage [31]. Once more, upon examining the healthcare systems of India and China, it becomes apparent that both nations do not have extensive insurance coverage and inadequate access to affordable primary and specialty care. Further, escalating apprehension regarding escalating healthcare expenditures is widespread in both nations, and the proportion of GDPs devoted to healthcare expenditures is comparatively modest in both cases. In contrast to India, where the private sector is more developed, China prioritizes the public sector. China has exhibited a more rapid growth in healthcare expenditure as a proportion of GDP since the mid-1990s, surpassing India [31]. India occupied the 145th position out of 195 countries on the Health Access Quality (HAQ) index, which evaluates the quality of health services. It was ahead of only two Asian countries, Afghanistan and Pakistan. Bangladesh was positioned 133rd on the HAQ index, whereas Sri Lanka was ranked 71st. There exists a positive correlation between performance on the HAQ index and health system inputs, total health expenditure by the government, and the

socio-demographic index [28]. Despite India's improvement in the HAQ index in 2016, significant disparities in subnational healthcare quality and access persisted, mirroring the situation in China [32].

Access to healthcare and equity should be assessed in order to determine whether UHC has been achieved. In order to quantify UHC, the subsequent criteria ought to be applied: (i) the percentage of the population that has access to quality health services that are essential, and (ii) the percentage of the population that spends a significant portion of their household income on health. The establishment of resilient financial frameworks is crucial for achieving universal health coverage (UHC); a high OOPE would result in the impoverished lacking access to the majority of services that are available to the affluent, while the affluent might face more severe financial hardships in the event of chronic or severe maladies [33]. In addition to augmenting public expenditure, robust primary care is a pivotal determinant in attaining healthcare affordability and equity throughout the nation [34].

To achieve optimal UHC implementation in India, it could be prudent to draw inspiration from established nations that have effectively executed the concept. This could entail prioritizing public sector coverage of healthcare costs to the fullest extent possible and strengthening the primary healthcare system. Healthcare systems in nations with single-payer or public insurance structures are dominated by local, regional, or national administrations [35]. Funded primarily by general taxes, the National Health Service (NHS) ensures nondiscriminatory healthcare access in the United Kingdom. A minor contribution is derived from national insurance, which is a payroll tax. It provides virtually free coverage to all residents of the United Kingdom, or universal coverage [36]. Healthcare is a national responsibility in France; the financing of the state's healthcare expenditures is provided through Statutory Health Insurance (SHI). The SHI is funded predominantly through national income tax (35%), employer and employee payroll taxes (50%) and employee payroll taxes (50%); its coverage is mandatory and universal for all residents [37]. The majority of the financing for universal health coverage in Spain comes from the Spanish National Health System (SNS), with the remainder coming from taxes [38]. Furthermore, a number of nations, including the United Kingdom, the United States, Sweden, Australia, and Spain, have adopted additional measures to ensure continuous health surveillance, including the utilization of child health indicators—a critical element of UHC criteria [39]. India possesses the potential to generate additional income tax revenue in order to finance increased public expenditure on health and infrastructure development. Given India's comparatively lower proportion of proficient physicians and healthcare practitioners in relation to global benchmarks, it is imperative to prioritize primary care and enhance the education of nurses and doctors [34].

In summary, given the limited healthcare budget and numerous unaddressed requirements, it is imperative that India's UHC strategy be both effective and fair. Despite all obstacles, the Ayushman Bharat reforms will prioritize PHC by ensuring that all citizens have access to free PHC services. By increasing political commitment and public investment in Ayushman Bharat wellness centers, India can attain universal health coverage by 2030 [40].

Way forward

The following are a few of the measures that India ought to undertake in order to chart its course of action [41,42].

• An augmentation of the healthcare budget. This will enable hospitals to grow and contribute to the long-term viability of healthcare facilities.

• Nationwide implementation of electronic medical record software for the collection of patient and disease information. It will facilitate the identification of obstacles encountered and offer assistance to enhance medical infrastructure and treatment.

• Maintenance and improvement of medical facilities and equipment to accommodate the requirements of India's enormous population, thereby reducing patient panic during epidemics.

• Nationally, standard operating procedures must be adhered to, and NABH accreditation must be mandatory for all private clinics, hospitals, and nursing homes. Specific regulations pertaining to patient database, biomedical waste management, area allocation, and fire safety should be modified to accommodate tiny clinics and nursing homes.

• The implementation of tele-pathology in rural regions and the augmentation of the capabilities of current diagnostic facilities.

• Medical Tourism: Statistics indicate that annually, more than 3.5 lakh individuals from various nations travel to India for the provision of cost-effective, cutting-edge medical services that are of international caliber. Since 2014, the medical tourism industry in India has expanded by 22–25%. The rise in question can be ascribed to significant developments in healthcare provision that have occurred within our nation in recent times, in

addition to the escalating expenses associated with medical care in developed nations. In light of this situation, it is reasonable to anticipate that India will soon emerge as the epicenter of medical tourism [42].

CONCLUSION

The provision of healthcare in India continues to be insufficient, notwithstanding the growing need for high-quality medical services. Although health insurance schemes are accessible to the middle class and urban residents, they provide inadequate coverage for the vast rural population of India and individuals living below the poverty line (BPL). Several of these obstacles have been effectively resolved through the joint initiatives of the central and state administrations. A government initiative has been made to systematically implement HTA and MTAB, in addition to a number of healthcare programs for rural and BPL populations. It is probable that enhanced healthcare accessibility and the nationwide adoption of NIP will reduce the prevalence of diseases and elevate the standard of living for the populace at large. Furthermore, the COVID-19 pandemic served as a wake-up call for the Indian healthcare system, revealing the need to strengthen various facets of the infrastructure. Hence, in order to restore the public health policy to its inherently public essence, it is imperative to augment the healthcare budget and optimize the patient-to-physician, hospital-to-patient ratio, ventilator-to-intensive care unit, etc. capacity. Rescue is contingent upon the public health system, which necessitates sufficient financial resources and strategic forethought [43].

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