MANAGING NCDS FOR EQUITY AND EQUALITY: THE POLITICS OF AYUSH

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Abstract

***Introduction and background**: Rising burden of NCDs now-a-days a major global health concern. The developing countries like India accounting for substantial portion of global disease burden need to addressed, here people often face challenges and barrier in accessing healthcare services. An integrative approach AYUSH HWCs is introduced by the government of India focusing on preventive and participative approach. The challenges in resource distribution, competency, and integration, and pursuing key directions such as strengthening healthcare professional training, improving infrastructure, promoting research, and health and wellness centres can effectively reduce the burden of non-communicable diseases through the incorporation of AYUSH modalities but AYUSH has failed while having a competitive advantage in the form of lower costs, higher quality, and unique features in terms of safety and quality. **Objective and methodology:** This paper examined the variable healthcare expenditure, service equity and equality and trust in AYUSH and the challenges that are in the way in adopting the integrative heath system as a choice and draws insights from those who have adapted integrative medicine in Uttar Pradesh, Ghaziabad India. A multistage random sampling procedure, 267 respondents were selected for a cross-sectional study. A semi-structured questionnaire and focus group interviews were used to collect primary data. **Results and finding:** Lack of healthcare infrastructure, limited availability of trained healthcare professionals in rural areas, and a lack of awareness about nearby alternative healthcare options such as AYUSH facilities had added an increment to the present burden and made significant gaps in healthcare accessibility and availability at the local level which is ultimately increasing one's out of pocket expenditures. The uneven distribution of resources and healthcare facilities, along with the varying competency levels of providers, have led to disparities in access and quality of care. More the half (64.7%) of the study population who were trap under catastrophic burden are from the low-income group. An efforts to promote AYUSH, the significant disparity in budget allocations and the underutilization of allocated funds indicate a neglect of traditional medicine systems compared to allopathic healthcare. Efforts to promote AYUSH, the significant disparity in budget allocations and the underutilization of allocated funds indicate a neglect of traditional medicine systems compared to allopathic healthcare. 35.2% of respondent family income was below ₹500 per day and a notably 58% of those earning less than ₹2,000 per day has pushed them to go for secondary opinion this illustrate that the financially vulnerable group are greatly affected by the inefficiencies in healthcare system. A pattern has emerged, highlighting the increasing reliance on AYUSH services among rural women, with 31.6% of female users from rural areas accessing these services primarily because they have limited healthcare options and lack access to other medical facilities. A critical aspect of healthcare that has existed for decades is now raising a question, why individuals suffering from NCDs do not access services at all, seek care late, or experience avoidable adverse outcomes despite timely presentation? AYUSH health facility affordability and availability result showed that 68.2% were not able to afford and avail the AYUSH services. **Discussion and conclusion**: The equity and equality variables for non-communicable diseases are not evenly distributed, principles of equity and equality do not hold the same ground for AYUSH as they do for allopathic healthcare. Integrating NCD services into the current healthcare system and the skill of healthcare personnel in addressing NCDs also emerged as significant areas of concern and questioning the governance process. As a result, the already established, effective, and efficient AYUSH framework is being underutilized and wasted. The lack of equity mechanisms further exacerbates this issue, as those who need healthcare the most struggle to afford it. As a result, despite the availability of cost-effective AYUSH treatments, many individuals remain trapped in a cycle of health-poverty. The elimination of inequity and inequality need to go a long way, which demand the unequivocal adoption Ayush polity and governance.*

Keyword: AYUSH, NCDs, Equity, competency, Health Poverty

Introduction

The rise of non-communicable diseases as a major global health concern has become increasingly apparent, with conditions such as cardiovascular ailments, various forms of cancer, respiratory illnesses, and diabetes now accounting for a substantial portion of the worldwide disease burden which accounts for around 60% of all deaths in India[1]. This alarming trend has been particularly more pronounced in low-empowered states like Uttar Pradesh, a developing state in India, where limited healthcare infrastructure and socioeconomic

[1] https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=1048&lid=604

disparities have exacerbated the impact of these non-communicable diseases. Populations often face barriers to accessing quality healthcare and suffer from social determinants of health that contribute to the health poverty and progression of NCDs. This requires a concerted effort to address the underlying challenges and inequalities to achieve equity and equality in managing these non-communicable health conditions. One approach to addressing this is the introduction of AYUSH Health and wellness centres by the government, which aim to provide comprehensive primary healthcare services, including traditional and complementary medicine practices(Kshatri et al., 2022). However, the integration of AYUSH into the healthcare system poses several challenges and raises important political questions. Populations have limited awareness or acceptance of these traditional practices which focuses on preventive medicine and wellness promotion through the AYUSH Health and Wellness Centres which is a reflection of a shift towards a more comprehensive approach to healthcare that not only treats diseases but also aims to prevent and promote them, and then the politics in healthcare field come into play, where the focus is solely on the disease burden, while the biggest challenge is actually reaching the people who need these services.

Background

NCDs require lifelong treatment, posing a challenge for sustained engagement and management. The current infrastructure and resources allocated to these centres are inadequate to effectively address the increasing prevalence of NCDs. Additionally, there is a significant gap in the competency and training of healthcare professionals in the current infrastructure and resources allocated to these centres are inadequate to effectively address the increasing prevalence of NCDs(Ravichandran, n.d.). Furthermore, the integration of AYUSH and conventional medicine at these centres is not effectively implemented, hindering the potential synergies between both systems. The challenges in resource distribution, competency, and integration, and pursuing key directions such as strengthening healthcare professional training, improving infrastructure, promoting research, and health and wellness centres can effectively reduce the burden of non-communicable diseases through the incorporation of AYUSH modalities. AYUSH has failed while having a competitive advantage in the form of lower costs, higher quality, and unique features in terms of safety and quality. AYUSH system was not focused on primary healthcare orientations which led to a loss of interest and confidence of people on the system. The Ayush system is not able to ensure safe, effective and qualitative improvements in delivering the clinical care itself. Lack of localisation its relevance also gets lost as compared to other systems of medicine in the country. The potentials in the system need to be tapped for preventive and promotive levels of treatment, reducing complications, and reduction in disease burden.

Objective

This paper examined the variable healthcare expenditure, service equity and equality and trust in AYUSH and the challenges that are in the way in adopting the integrative heath system as a choice and draws insights from those who have adapted integrative medicine in Uttar Pradesh, Ghaziabad India. While working to reduce the untenable gaps between goal and intervention, AYUSH detects potential chances to construct equity mechanisms at the household and individual levels.

Methods and Materials

A multistage random sampling procedure, 267 respondents were selected for a cross-sectional study. A semi-structured questionnaire and focus group interviews were used to collect primary data from the Ghaziabad (district Dasna) region using a mix of qualitative and quantitative methods.

Results and findings:

1. ***Out-of-pocket expenditure***

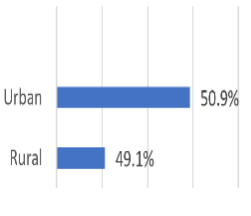


Fig 1: Travel for illness by residence (Rural vs. Urban)

Fig2: Preferred Healthcare Type in Rural and Urban Areas

Analysis of the results showed that 49.1% of the respondents were from rural areas where whereas 50.9% (Fig:1) of the respondents accessing services from 2nd tear city is moving to city2–Tier cities for primary healthcare services this reflects significant gaps in awareness promotion and faith in the AYUSH system in rural region, (Fig:2) 61.8% Respondent are availing primary hospital services whereas 36.3% secondary services and 1.9% tertiary care services. On the contrary to it half of the (50.9%) of the study population availing primary healthcare services within the city, revealing that rural areas have less accessibility and availability of AYUSH facilities which add on financial cost to people, >28% of respondent travel approximately >7km which imposes a substantial

financial burden, especially on economically disadvantaged expenses, loss of daily wages, and in some cases, accommodation and food costs in case where extended treatment is taken. Lack of healthcare infrastructure, limited availability of trained healthcare professionals in rural areas, and a lack of awareness about nearby alternative healthcare options such as AYUSH facilities had added an increment to the present burden and made significant gaps in healthcare accessibility and availability at the local level. Furthermore, social and cultural perceptions about the quality and effectiveness of care in nearby centres has compelled people to seek services from distant facilities, even when where local options like (AYUSH HWC) exist.

The findings reveal significant inefficiencies and financial burdens in the healthcare system, particularly in the diagnostic and confirmation process, more than 18% of the total population had to visit a doctor multiple times just to confirm their diagnosis, with 40.6% requiring further re-examinations and additional diagnostic tests (Fig:3). This indicates a lack of accurate initial diagnoses, which leads to delays in treatment and increased out-of-pocket expenses for patients.

A deeper analysis shows that 23% of these re-examinations were necessary due to delayed procedural outcomes or the unavailability of specific tests at previous facilities, highlighting gaps in diagnostic infrastructure and service accessibility. Additionally, 64.4% of respondents received their diagnosis at private hospitals, and 2.2% at private pharmacies, which suggests a heavy reliance on private healthcare providers, likely due to perceived inefficiencies or inadequacies in public healthcare services. The data also underscores a significant trend of seeking second opinions, with 41.2% of individuals opting for another consultation elsewhere, due to faced problem from the hospital side(21%) doctors was available (23.2%),more diagnosis was done (19.6%)hospital services was not good (28.6 %) didn't diagnose properly from the hospital side approx. (6%)waited for senior opinion for the confirmation of the health problem at health centres.

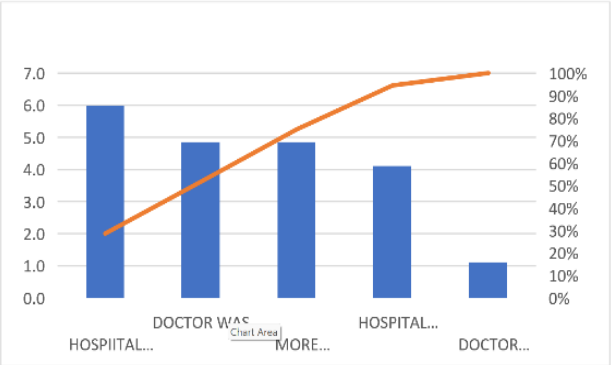


Fig 3: Number of visits required for diagnosis and hospital-related Delays

Furthermore, 35.2%of respondent family income was below ₹500 per day and a notably 58% of those earning less than ₹2,000 per day has pushed them to go for secondary opinion this illustrate that the financially vulnerable group are greatly affected by the inefficiencies in healthcare system.

2. ***Service equity and equality:***

The research findings highlight the need to address the inequities in NCD service provision within the Delhi-NCR region. Specifically, the uneven distribution of resources and healthcare facilities, along with the varying competency levels of providers, have led to disparities in access and quality of care.

More the half (64.7%) of the study population who were trap under catastrophic burden are from the low-income group. AYUSH which was suggested to have direct impact on reducing the out-of-pocket expenditure with maximise the utilisation of under limited resources are being majorly utilised by this group only 0.4% of the study population were from the income >10000. Recent trends in the utilization of AYUSH services indicate a nearly equal distribution between urban and rural populations, with 50.9% of users residing in urban areas and 49.1% in rural regions.

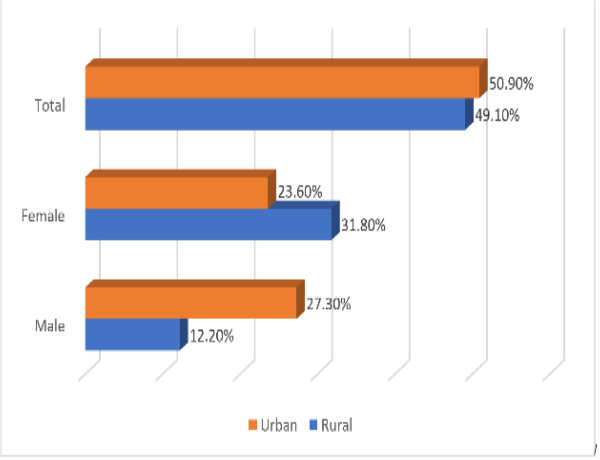


Fig 4: Demographic Comparison: Gender Distribution in Rural and Urban Areas

However, a pattern has emerged, highlighting the increasing reliance on AYUSH services among rural women, with 31.6% of female users from rural areas accessing these services primarily because they have limited healthcare options and lack access to other medical facilities (Fig:4). The affordability and availability of free medicines further make AYUSH a more accessible choice for them. For many, AYUSH remains the only viable healthcare option in the absence of accessible alternatives. In contrast, urban AYUSH users are predominantly men (27.3%), with the majority belonging to low-income groups who turn to AYUSH as a cost-effective healthcare solution.

As per Rangarajan Committee revised estimates ₹32 per day (₹972 per month) in rural areas and ₹47 per day (₹1,407 per month) in urban areas determined as basic income level. setting the poverty line at ₹972 per month (₹32 per day) in rural areas and ₹1,407 per month (₹47 per day) in urban areas the picture depicts 39.7% and 34.5% of the people are spending > Rs 1000 per month on their medicine and doctor's fee. As a result, many low-wage earners, despite working full-time, remain trapped in a cycle of poverty, with healthcare expenses acting as a significant factor pushing them towards the health poverty. In today's world most of the developing nation have reduced their health spending over NCD but in country like India death due to NCD is 8700000 out of which 54% of the young population are at risk. Indian state that spend <10$ per person found to have additional NCD cases reported than their counter parts who spend over $50.This suggests that while economic factors drive AYUSH adoption across both rural and urban settings, the motivations differ—rural women often lack alternative healthcare options, whereas urban low-income men choose AYUSH as an affordable alternative to mainstream medical services.

TYPE OF ILLNESS * Age-grp Crosstabulation

		Age-grp				
		20.00	2140.00	4160.00	6180.00	Total
TYPE OF ILLNESS	HEART DISEASE	1.1%	2.2%	3.7%	1.1%	8.2%
	CANCER			.4%		.4%
	DIABETES		10.1%	28.5%	5.2%	43.8%
	COPD		1.9%	7.1%	2.2%	11.2%
	HYPERTENSION		7.5%	12.0%	5.2%	24.7%
	RENAL/KIDNEY DISEASE		2.2%	4.1%	1.1%	7.5%
	INJURIES		.4%	.7%		1.1%
	OTHERS		.7%	2.2%		3.0%
Total		1.1%	25.1%	58.8%	15.0%	100.0%

Table 1: cross-tabulation of type of illness across the different age groups.

When analysed the disease pattern among AYUSH user the most affected age group (Table:1) falls between 21-60 years within this diabetes (38.6%) and hypertension (18.5%) within the same age group. Diabetes is score with highest in its incidence and prevalence rate both in rural as well as in urban region of Gaziabad. The primary reason for this trend when interviewed includes financial responsibilities, work-related stress and lack of awareness about the symptoms a risk factors of the diseases. That led majority of respondents to ignore early symptoms and preventive measures.

In mid-2015, an alternate mechanism, AYUSH, supplemented healthcare, especially for NCDs and chronic diseases, with a motive to transform the health system. For the fiscal year 2025-26, the Indian government allocated approximately ₹99,858.56 crore to the health sector, which primarily supports allopathic services. In contrast, the Ministry of AYUSH received an allocation of ₹3,992.90 crore for the same period, reflecting a 14.15% increase from the previous year. Despite the limited allocation, there have been instances where the allocated funds for AYUSH were not fully utilized under the National AYUSH Mission, only 37% of the funds allocated to states by the Government of India were utilized over a three-year period. States like Assam, Bihar, Jharkhand, and Meghalaya did not utilize any of the allocated funds, while Maharashtra, with the largest AYUSH workforce, spent only 1.1% of its allocation[2]. While there have been efforts to promote AYUSH, the significant disparity in budget allocations and the underutilization of allocated funds indicate a

[2] https://economictimes.indiatimes.com/news/economy/policy/budget-ayush-ministry-allocated-rs-3992-90-crore/articleshow/117834142.cms?utm_source=chatgpt.com&from=mdr

neglect of traditional medicine systems compared to allopathic healthcare (Table:2).(Savrikar, 2019)

Ayush budget[3]

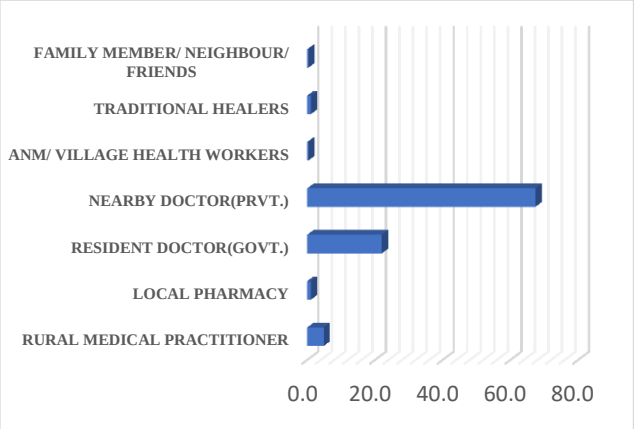
Table 2:-AYUSH Budget Distribution Overview

Fiscal Year	Budget Allocation (in ₹ crore)	Percentage Increase from Previous Year
2021-22	2,970.30	40%(*Press Information Bureau Health*, n.d.)
2022-23	3,050.00	2.7%
2023-24	3,712.49	21.7%
2024-25	3,497.64	-5.8% (Revised Estimate)
2025-26	3,992.90	14.2% [4]

3. ***Disease and its financial implication***

This Section has all together shift the person towards health poverty, sharing same causes that are multiple and both act together generating dis-ease and co-morbidity in low oncome group in both urban and rural areas. Here coverage in term of healthcare service delivery is not only poor but insufficient and lack quality. There also exist a disagreement in state and local bodies, social and political health authorities to work conjointly in the promotion prevention and protection of AYUSH system of medicine. The question still remain on stand that how AYUSH can more effectively pursue to mitigate health inequalities and also making its position relevant in providing comprehensive healthcare with continuum care? Every year more and more people are falling into catastrophic disease spectrum with present rate of 6/10 cases with NCDs and AYUSH system still lack early detection, prevention and early intervention services, resulting in high tertiary cost. Hence, Revitalisation of integrative medicine should be focused on finding not only the technical competence but also conjointly look after them with its best interest equitably.

Fig 5: choice of healthcare provider in illness



[3] https://www.data.gov.in/resource/year-wise-details-budget-allocated-ministry-ayush-2019-20-2023-24

According to the study, more that 65.5% of the patient are opting other than the govt practitioner and more than 60 % spending (more than 200 rupee per visit for) on consultation. Respondent have to travel far way than the usual to avail the AYUSH services costing more what they were availing from the modern medicinal system. 84.6% incur substantial transportation costs in order to reach HWCs. Although these costs are indirect, they do contribute in some way to the

overall increase in out-of-pocket expenditures. According to the study, more that 65.5% of the patient are opting other than the govt practitioner and more than 60 % spending (more than 200 rupee per visit for) on consultation. Respondent have to travel far way than the usual to avail the AYUSH services costing more (Fig:5) what they were availing from the modern medicinal system. 84.6% incur substantial transportation costs in order to reach HWCs. Although these costs are indirect, they do contribute in some way to the overall increase in out-of-pocket expenditures.

A critical aspect of healthcare that has existed for decades is now raising a question, why individuals suffering from NCDs do not access services at all, seek care late, or experience avoidable adverse outcomes despite timely presentation? This issue is closely tied to the intangible concept of equity, which is difficult to measure but plays a significant role in healthcare access and outcomes.

4. ***Growing skepticism toward AYUSH as an alternative***

The findings reveal a significant inclination towards allopathic treatment**,** with 65.5% of patients preferring private allopathic practitioners and 26.3% opting for government allopathic doctors and centres**,** while AYUSH remains the choice for only 0.4% of respondents. The efficacy and quick relief provided by allopathic medicine is undeniably a major factor in its widespread preference. However, an important question arises—why do even those who visit AYUSH Health & Wellness Centre's (HWCs) still opt for allopathic treatment over AYUSH?

Few reason which were identified in the state of Ghaziabad were complexity of AYUSH treatment regimens**,** which often require strict dietary restrictions, lifestyle modifications, and longer durations for visible results. Unlike allopathic medicines, which are easier to consume and provide immediate symptomatic relief, AYUSH treatments demand patience and adherence to holistic routines**,** making them less convenient for many patients. Additionally**,** the lack of standardized dosages, variations in formulations, and difficulty in understanding prescriptions further

add to the confusion surrounding AYUSH treatment.

Though AYUSH health and wellness centre has been created however the required speciality care and treatment require for the effective treatment is not developed and being question by the receivers. Due to this 2/3rd respondent could not get right care and correct treatment for significant time duration. This lapsed the right care at the right time and follow up provision.

Adding to non-availability and non-accessibility of AYUSH HWC services to patients with chronic diseases and failure to understand from past mistakes, governing from the past lessons led Indian health system once again in numbing position. In the past there were numerous studies that focused on strengthening programme, improving strategies and execution on policy planning took place now failed to mirror, saddening the system failure and repeating the same exercise once again proves the ignorance.

Nearly two-thirds 54.5% Suffering from the same illness of spent on dietary food during the hospitalization or home care and 53.8% patients stated that they spend hefty amount for purchasing the drugs and medicines. With such hefty amount of spending there exist no reimbursement for this indirect cost repayment hence pushing the population towards out-of-pocket expenditure and AYUSH health poverty. This led to follow the AYUSH when the treatment is of long term in nature where cost and other competencies are higher and beneficial and they prefer to choose local modern medicine for primary care this led to depletion of AYUSH mission goals while not focuses on the outcome of the services due to poor governance mechanism supporting the health services. Out of the total respondent only 37 respondents were received reimbursement which showing the protection coverage at the current stage.

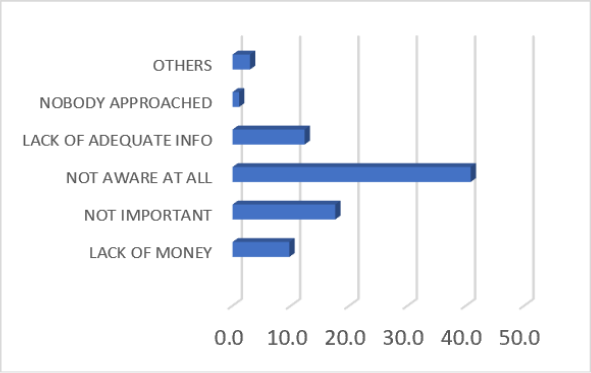


Fig 6: Reason for not opting for an insurance policy

The Ayushman Bharat program has become quite famous and government have enrolled 50% of the population from BPL but rest is still need to be enrolled. In contrast to it when study population were interviewed 40% of the patient were not even aware of the Ayushman Bharat scheme or any other protection scheme (Fig:6). Additional to it respondent faced challenges in getting enrolled and that showed availability and level of reach to the population.

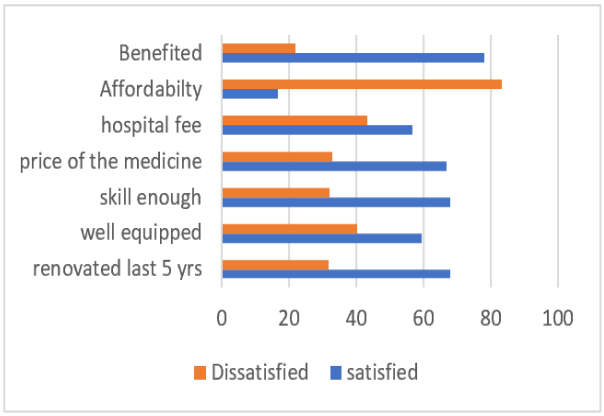


Fig 7: feedback of the AYUSH services

However there existed many reasons why the public is not covered and protected. Results shows that 69.3% of the population was not even aware of any insurance program or any reimbursement process these questions the governance process of centre as well as of state. When comes the question of service Quality only 40.4% patient were dissatisfied with AYUSH health and wellness facilities infrastructure, equipped and management rate of dissatisfaction was 52%,67% of patient said the they were satisfied with price of the medicine and hospital fee (56.6%) however the affordability rate was 83.4% satisfactory but that again nullified by benefited rate with 22%(Fig:7). Whereas private facilities were well equipped and managed leaving rest of the population unsatisfied with AYUSH system leading to failure in faith and trust on the system as an alternative choice for the treatment.

When it comes to rate the AYUSH heath facility affordability and availability result showed that 68.2% were not able to afford and avail the AYUSH services. Additionally, results also showed that the majority (29.4%) of the respondent's family member did not seek treatment or dropped out the treatment because either they were facing financial constrain or the AYUSH health centre were unequipped, loss of wages or was located far distance. 89% compromises certain thing to avail the health services out of which 60% of the either took loan with interest or sold property for availing the health service.

Discussion

According to the study's findings the equity and equality variables for non-communicable diseases

are not evenly distributed, principles of equity and equality do not hold the same ground for AYUSH as they do for allopathic healthcare. In many cases, they do not exist at all. Patients are often not making informed choices about AYUSH rather, they opt for what is available, affordable, and accessible—without adequate awareness or knowledge of its benefits. In several areas, AYUSH infrastructure is absent, while in others, human resources are either unavailable, insufficient or lack the necessary expertise. Conversely, even where facilities and trained practitioners are present, public trust in AYUSH remains weak, leading to underutilization of resources.

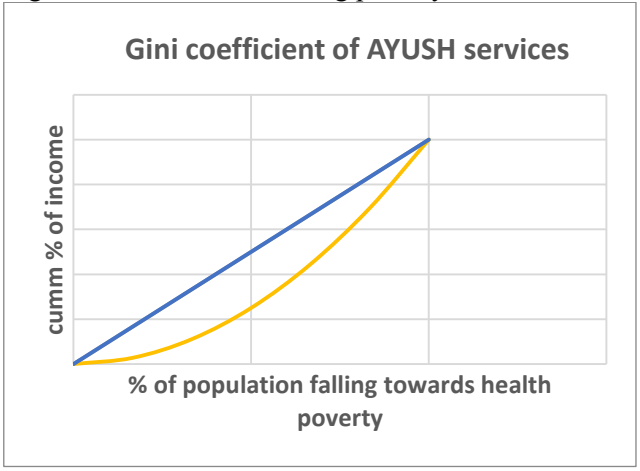
Integrating NCD services into the current healthcare system and the skill of healthcare personnel in addressing NCDs also emerged as significant areas of concern and questioning the governance process. There was a noticeable disparity in the availability of AYUSH health and wellness centres in rural areas compared to urban areas, suggesting that rural areas do not have the resources necessary to address non-communicable diseases. The accessibility of NCDs care is directly affected by this resource inequality, which emphasises the need for focused measures to rectify the imbalance. Unfortunately, the AYUSH System has not been well included in NCDs coverage. Conversely, AYUSH has been unsuccessful despite possessing a competitive edge that includes lower costs, better quality, and distinctive safety and quality characteristics. The lack of primary healthcare orientations in the AYUSH system caused people to lose interest and trust in it. Because it is not locally relevant, it loses ground when compared to other allopathic medical systems.

These disparities create a policy-driven disadvantage against AYUSH, indirectly influencing public perception and discouraging belief in an integrative healthcare system. As a result, the already established, effective, and efficient AYUSH framework is being underutilized and wasted. The envisioned goal of integration between AYUSH and modern medicine appears fractured and unachievable, as systemic inefficiencies, lack of trust, and infrastructural gaps continue to push the population away from AYUSH rather than toward a holistic healthcare model.

Conclusion

summing-up, the Lorenz curve (Fig:8) explains that healthcare expenditures are not evenly distributed as the population experiences significant disparities in affordability, accessibility, and accountability. In addition, low-level of support mechanisms such as insurance coverage and structured healthcare financing, further depleting healthcare. Although AYUSH treatments are generally low-cost or even free, individuals still face a difficulties and financial burden due to out-of-pocket (OOP) expenditures. While better-off with a financial buffer, struggling to meet the required healthcare costs, and which often exhaust their savings, pushing them back into economic vulnerability. The lack of equity mechanisms further exacerbates this issue, as those who need healthcare the most struggle to afford it. As a result, despite the availability of cost-effective AYUSH treatments, many individuals remain trapped in a cycle of health-poverty.

Fig: 8 Lorenz Curve showing poverty shift



Further the figure illustrates that the invisible disease and healthcare burden which are characterized like time-consuming preparation of AYUSH medicines and their inconvenience in carrying, often leads to irregular usage. Sometimes, people forget to take them, and in some cases, the complex preparation methods make it difficult to remember how to make them correctly, which in turn forces them to revisit the healthcare centre. Additionally, AYUSH treatments sometimes take longer to show results.

Compared to allopathic medicine, requiring patients to take time off from work, which directly impacts their income. In some cases, symptoms persist for a long time, leading to prolonged discomfort and affecting overall health. As a result, many patients end up taking allopathic medicine alongside AYUSH treatment to manage their condition effectively. However, the incremental allocation for health support mechanisms and incentive-based GDP for health cost, need to be focused. Though Integrative medicine guarantees healthcare and care continuum for ensuring healthcare systems contribute to equity, efficiency against NCDs' have to be structured toward people-centric. This step expected to prevent the disease and economic

burden and protect people from falling into health poverty. It is widely acknowledged that income and health care- Inequity and equality persist in the system (Ravichandran et al., 2021) However, its eliminatiom need to go a long way, which demand the unequivocal adoption Ayush polity and governance. The journey from the current state of AYUSH integration and effective mainstreaming towards future not only requires the convergence of systems rather than convergence of perspectives, knowledge, and a shared commitment to advancing healthcare (Ravichandran & Khan, 2024).

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