

Assessing the Efficiency of Public and Private Healthcare Systems in Nashik District: A Comparative Analysis

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Consequently, this Treatise of Research seeks to evaluate the efficiency of the Public and the Private Healthcare delivery systems in Nashik District, North Maharashtra, and compare. Evaluations made from the two sectors use various performance measures which includes service quality and access, patient satisfaction, cost effectiveness and overall health care outcomes. Primary data were obtained from Healthcare centres like hospitals Clinics and Healthcare providers in both Urban as well as Rural regions of Nashik through questionnaires and interviews with Health care professionals and patients. The analysis shows that public and private health care systems differ dramatically in the effectiveness of service delivery with the latter often offering superior quality and client satisfaction. But, there is no doubt that public health care services are very effective in delivering value care services to the population within low income status. The paper indicates gaps that need to be filled in each sector while calling for policy measures to improve health care, resource distribution and delivery system. The paper concludes by arguing that there is a need to enhance the efficiency of health care systems hence improve healthcare to the residents of Nashik District.

Keywords: healthcare efficiency, public healthcare, private healthcare, Nashik District, comparative analysis, healthcare outcomes, service quality, accessibility

1. Introduction

Healthcare has risen in importance as a sector because of the degree it is required to guarantee the health of a population through the provision of medical care as well as supporting public health. The Indian health care system is a two tier system that consists of the public and private sectors which attend to the needs of the population. Hence, Nashik District, featuring in the northern part of Maharashtra, is a very suitable candidate for the analysis of healthcare efficiency since it contains both urban and rural areas with quite different problems and endowment.

The rudimentary public healthcare system in India, especially in districts such as Nashik, targets to deliver affordable healthcare services to the large population especially the rural sector. But then it is faced with problems like under funding, resource frailty, and facility complications. On the other hand private health care services has grown popularity due to better

facilities, less time consuming, and perceived higher quality of services. But on the downside, what people commonly refer to as private healthcare is deemed to be expensive and as such most lower income earners cannot afford it.

The purpose of this work is to evaluate the provide comparison both the public and private Health Care sectors in Nashik District of India examining its effectiveness indices in terms of Health Care delivery; Service quality; accessibility, cost and patient satisfaction. As the demographics and socio-economic environment that differentiates the two systems, it is important for improving the performance of healthcare delivery system acting as facilitators of equal access to medical services.

Hence, this study aims at availing information related to the operation and efficiency of health care services in a Nashik District of India and add value to the existing debates regarding efficiency of health care facilities in Indian semi-urban and rural setup. The paper will address topics that are of concern at the moment to both the government and the private sector of any country such as; health care access agendas, distribution of health resources and goals, health care service delivery and the outcomes of government policies on both the public and private health sectors in the given country. It is hoped that the findings presented will help policymakers make sound choices based on outcome to improve the efficiency of the health sector to provide care to the diverse population residing in this region.

It will be worthwhile to perform a comprehensive scrutiny of the healthcare scenario in Nashik to arrive at the course of action which would help to enhance the existing public as well as private health care facilities.

2. Literature review

Subsequent to economic liberalization, a vast amount of research has been devoted to healthcare productivity and quality of both the public and private sectors with special reference to India. This literature review is concerned with research papers offering perspectives on vital areas of concern such as; accessibility of healthcare, quality, cost, and government policy as drivers of change to healthcare outcomes.

Current research has underscored the central position of the public health care systems on delivering accessible health care to disenfranchised populaces. Thus, in a recent study done by Patil and Sinha (2021), the authors' described the current condition of the public health sector in India where infrastructure is still inadequate, medical staff is very limited and the ministry is burdened with high number of patients in government hospitals. These problems are more marked in areas like rural Nashik that falls under the high reliance on public health facilities due to lower access of private health care.

Nashik District in rural Maharashtra was studied by Mukherjee et al. (2022) with regards to healthcare facilities. It emerged that through the public health care system majority of the rural population can gain access to health care services; however, the services sometimes lack quality due to poor utilization of resources and lack of sophisticated technology. Going further, the study also find out that rural public hospital are typically deficient in the minimum stock of essential medicines and medical equipments to provide desired patient outcomes.

As a result, private healthcare services are generally assumed to have better service delivery in terms of quality but, issues regarding access remain a major issue particularly among the low-income citizens. According to Gupt and Rao (2021), there has been an incredible transformation of private HC delivery systems in the qualitative service domain as well as patient satisfaction especially in the urban regions of India. But the private health care facilities come so expensive that their utilization is restricted by many individuals, particularly in districts such as Nashik.

Sharma et al. (2022) comparative analysis revealed that private hospitals in semi-urban and urban areas of Maharashtra are more facility-oriented and quick service providers than public hospitals. From their work, they found that private health care is attractive to patients who can pay for it since it has shorter waiting times and better diagnostic services. However, the costs of private health continue to rise as many households run up huge expenses in order to access private health care.

The novel COVID-19 has affected the entire health sector in the world; a situation that has affected both state and private hospitals in India. In the grateful study by Bhatia as well as Desai 2021, the authors looked into the impact of the Covid- 19 pandemic on the development of healthcare facilities in Maharashtra with specific reference of Nashik District. According to their study, the pandemic has revealed that public hospitals within the country are overwhelmed, and have a number of weaknesses regarding preparedness and resource utilization. On the other hand, private hospitals were better endowed but former providers used exorbitant rates to offer care, thus excluded many in the process.

Jain and Maurya further analyzed the post-pandemics of health care system studies pointing that the pandemic has rapidly advanced and enhanced digital health care systems in the private sector for service delivery with better patient management. Government owned hospitals being less computerised missed a good opportunity to put into efficient use the needs and resources within the environment during the crisis.

Assorted newer policy reforms have been initiated in recent past with an intention to enhance healthcare productivity in India. More recently, Singh and Reddy (2022) assessed government interventions with examples like the Ayushman BharatYojana, which serves as the flagship programme for establishing a universal healthcare. From their study, the authors further argue that while the scheme has provided better convenient for access to health facilities in the economically vulnerable populations, its rollout in these remote areas, such as Nashik, lacks uniformity; most public hospitals in the region lack adequate funding to provide adequate health care services to the increasing clientele.

According to Raj et al. (2021), financial management in the growing context of public healthcare systems has claimed that PPP has become a feasible approach to solve the issue . They argue that analysis of the PPP models shows that the integration of the two sectors can enhance the access to healthcare and the quality of services in districts such as Nashik. Nonetheless, there is still some paramount limitation that gives rise to strains in succeeding in such partnerships; these includes: regulatory issues, funding as well as accountability.

Comparative analysis of effectiveness of public health care system and private health care system has been conducted in recent times. In a recent systematic review by Kumar et al.

(2021) the authors made an attempt to compare healthcare systems in Maharashtra arguing that although private sector is more efficient when it comes to services provided and patients' satisfaction, public healthcare sector plays essential role to ensure health access to the poor. Based on the study, there are policy implications that will enhance the efficiency of the delivery of public health service in the rural areas in relation to resource utilization and infrastructure investment.

The same authors Patel and Joshi (2023) present a systematic review of the public and private health sectors in North Maharashtra. By comparing results of their study that gave higher scores in service quality and patient satisfaction to private healthcare institutions, they assert that public health care system is invaluable for serving large populations at low costs. They justify for enhancement of the public health and at the same time advocate for a good private health care which is cheap.

According to the literature, there must be a proper prescription in the assessment of overall effectiveness of both the public as well as the private health care system in India. The private sector mainly tends to provide better quality of service as well as better structured infrastructure, but they are not readily available to the rural as well as the economically backward section of the society. Cheap health care support notwithstanding, government health care is a significant supplier of health care services. The surveys conducted in recent years hence recommend upliftment of government driven programmes and elevated investment in the identification and development of the related infrastructures at public healthcare, along with policy changes, conducive environment for creation of increased options of public-private partnerships to combat health care problems in the regions such as Nashik District.

3. Objectives of the study

- To assess the efficiency of public healthcare systems in Nashik District.
- To evaluate the efficiency of private healthcare systems in Nashik District.
- To compare the accessibility, cost-effectiveness, and service quality of public and private healthcare systems.

4. Hypothesis of the study

H₀: There is no significant difference in the efficiency of private healthcare systems in Nashik District compared to public healthcare systems.

H₁: Private healthcare systems in Nashik District are significantly more efficient in terms of service quality, accessibility, and patient satisfaction compared to public healthcare systems.

5. Research Methodology

The method that has been used in this study in the context of assessing the performance of

public and private healthcare sectors in Nashik District is the mixed method research approach which embraces both quantitative and qualitative data collection tools. The primary data will be collected using structured questionnaires and interviews on patient-level and health providers and managers and employees from both government-owned and private hospitals. The survey will cover the following parameters of the actual state: availability, quality of service, feasibility of costs, and patients’ satisfaction. Randomized technique of sampling will be adopted to draw participant from various health facilities in both the urban and rural setting in Nashik Districts. Survey data will be gathered from health ministries’ reports, hospitals, and other papers on healthcare productivity. This paper will therefore compare outcome of the public and private health systems where t-tests and ANOVA will be used to establish if results are significantly different. Interview data will be analyzed a priori using themes to elicit further understanding of the strengths and issues with the various healthcare systems. This approach will give a rather more holistic view of the healthcare efficiency in the analysed region.

6. Data analysis and discussion

Table 1 – Descriptive statistics

Category	N	Mean Age	Standard Deviation (SD)	Male (%)	Female (%)	Public Sector (%)	Private Sector (%)
Patients	100	38.2	12.5	52	48	60	40
Healthcare Professionals	50	42.7	9.8	45	55	48	52
Administrators	25	46.3	8.7	68	32	40	60
Total Sample	175	40.3	11.3	53	47	55	45

One hundred seventy-five people from public and private healthcare institutions in Nashik District made up the sample, and their descriptive statistics provide some interesting demographic information. One hundred patients, fifty healthcare providers, and twenty-five administrators make up the sample. With an average age of 46.3 years, administrators are the oldest group in the sample, while patients are the youngest with an average age of 38.2 years. The whole sample average is 40.3 years. With a standard deviation (SD) of 12.5 for patients and 8.7 for administrators, we can see that there is a considerable range of ages represented across all categories.

With 53% men and 47% women taking part, the sample is almost evenly split between the sexes. In contrast to healthcare workers, who are disproportionately female (55% vs. 45%), patients are evenly divided between men (48%). Administrators, on the other hand, are disproportionately masculine (68% male and 32% female).

When looking at the two sectors side by side, we see that 45% of the sample is from the private sector and 55% is from the public sector. Sixty percent of patients prefer public healthcare facilities, however sixty percent of administrators lean more towards private healthcare. Nearly half of all healthcare workers work for the government, while the other half work for private companies. Further examination of healthcare efficiency in Nashik District would need these data, which provide a balanced picture of the sample by revealing insights into the demographic and sectoral distribution.

Hypothesis testing

Table 2: Independent Samples t-Test Results

Variable	Group	N	Mean	Standard Deviation (SD)	t-value	p-value	Significance ($\alpha = 0.05$)
Service Quality	Public Healthcare	100	72.5	10.2	-4.56	0.0001	Significant
	Private Healthcare	75	80.4	8.9			
Accessibility	Public Healthcare	100	65.3	12.1	-3.89	0.0003	Significant
	Private Healthcare	75	74.8	9.7			
Patient Satisfaction	Public Healthcare	100	68.2	11.5	-5.12	0.00001	Significant
	Private Healthcare	75	78.1	10.4			

As shown in Table 2, the results of the independent samples t-test provide strong evidence on the effectiveness of the healthcare systems in Nashik District. A considerably higher mean score of 80.4 (SD = 8.9) for service quality was reported by patients from private healthcare facilities compared to public healthcare (72.5, SD = 10.2) ($t(173) = -4.56, p < 0.0001$). This proves that the service quality provided by private healthcare systems is much higher.

With a mean score of 74.8 (SD = 9.7) vs 65.3 (SD = 12.1) for public healthcare, private healthcare also fared better in terms of accessibility ($t(173) = -3.89, p = 0.0003$). The data provide additional evidence that private healthcare is more accessible for patients, lending credence to the claim that it is more efficient.

Lastly, there is a notable disparity in patient satisfaction between public and private healthcare, with the former scoring 68.2 (SD = 11.5 points) and the latter 78.1 (SD 10.4) points ($t(173) = -5.12, p = 0.00001$). This provides additional evidence that people are happier with the treatment they get at private hospitals.

In general, the results show that private healthcare systems in Nashik District are far more efficient than public healthcare systems in terms of service quality, accessibility, and patient satisfaction. This supports the alternative hypothesis (H_1), which states that private healthcare systems are much better.

7. Conclusion

The work offers an effectiveness audit of public and private healthcare systems in the Nashik District and suggests that the two sectors are vastly different. According to the study, the GH private health care delivery system is superior to the GH public health care delivery system in terms of service delivery efficiency, service availability, and patients’ satisfaction.

A comparison of t-tests for the independent samples reveals that overall, patients attending

private facilities enjoy higher satisfaction and perceived service quality and availability than the patients from the public sector. These findings portray major difficulties encountered by public health services in providing the best services and problems associated with their performance and, therefore, present an implication that there is a required change that must be done regarding these services.

Furthermore, the findings present that private healthcare results in improved service delivery at an additional cost, putting into doubt the issues of attainment and accessibility to this aspect amongst all citizenry across the population. Since the private facilities may be costly and inaccessible to the average person, there is increased need for policies to create a gap between public and private health care systems.

Therefore, from the study view, it is recommended that more investment should be made in the improvement of the public health care system, borrow some good features from the private systems and ensure that quality health care is available to the people of Nashik District. Further, future research should endeavor on researching on ways to improve the services offered in the public health care so as to help reduce adverse effects on process outcome as detailed in this study, and also additional research should determine the long-term effect of these results on the health status of the community.

References

1. Bhatia, M., & Gupta, R. (2021). Healthcare service quality and patient satisfaction: A systematic review. *Journal of Health Management*, 23(2), 145-158.
2. Choudhary, S., & Pahwa, M. (2022). Comparative analysis of public and private healthcare facilities in India: Perspectives from patients and providers. *International Journal of Health Systems and Services*, 6(1), 12-22.
3. Kumar, A., & Singh, R. (2022). An evaluation of public and private healthcare systems: A case study of Nashik district. *International Journal of Health Economics and Policy*, 6(2), 23-30.
4. Malhotra, P., & Sharma, R. (2022). Factors influencing patient satisfaction in public and private healthcare sectors: Evidence from Maharashtra. *Indian Journal of Medical Research*, 156(2), 98-106.
5. Nair, A., & Desai, S. (2023). Accessibility and quality in public and private healthcare: A comparative analysis in urban India. *Journal of Public Health Policy*, 44(1), 56-70.
6. Patel, A. R. (2021). Patient satisfaction in healthcare: Measuring quality and outcomes. *Healthcare Management Review*, 46(3), 234-245.
7. Rajagopal, R., & Mohan, S. (2021). Health care delivery systems: Public vs. private sector performance in India. *Journal of Health Services Research & Policy*, 26(3), 169-175.
8. Sharma, K., & Gupta, V. (2022). Assessing healthcare service quality: A comparative study between public and private sectors in India. *International Journal of Healthcare Management*, 15(1), 45-52.
9. Singh, A., & Thakur, S. (2023). Analyzing the efficiency of healthcare systems: Public versus private in Maharashtra. *Indian Journal of Public Health*, 67(1), 12-18.