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## EFFICIENCY IN HEALTHCARE DELIVERY PERFORMANCE OF PUBLIC SERVICES

Efficiency in Healthcare delivery:  
Performance of Public Services

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**This eSSay on Public Health Services by Manisha Karne is part of a series on Maharashtra focusing on major development issues in the state. We are grateful to the author for taking the time and effort to prepare and write the essay for eSS.**

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# **Efficiency in Healthcare delivery: Performance of Public Services**

*This paper focusses on the current health profile of the state of Maharashtra, and its performance as against other growth driven states like Tamil Nadu and Gujarat. Using parameters such as birth rate, death rate, infant mortality rate, maternal mortality rates, among other, the author also reviews the inter-district performance of Maharashtra in health indicators. The author examines the various aspects of health care services in Maharashtra against the challenge of achieving the desired health outcomes for the population of the state.*

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## **Introduction**

The state of Maharashtra has registered a growth of more than 7.5 percent to 8 percent in the recent past, establishing itself as a strong growth driver for the country. The performance of the State of Maharashtra on economic parameters has always been impressive compared to other states in India. Maharashtra in many respects has historically been a leading state and hence the expected level of achievements and performance are commensurately higher. It has performed better than many other states in India in social sectors like health and education,, but it has also been criticised for its failure to tackle the problems of under nutrition among children and rising health inequalities across regions and various social groups. Contrary to its top rank in economic indicator, it does not hold the same position in health and educational indicators. In fact, the state has come under severe criticism for the slippages it has suffered on various counts and in the extreme, has been characterised as a ‘failed state. This might seem to be an extreme criticism, but the failures on under nutrition and health inequity are absolutely unjustifiable.

This paper attempts to objectively verify the validity of this statement generally and tries to recognise the underlying causes for the present state of affairs.

The paper is structured as below:

It examines the various aspects of health care services in Maharashtra against the challenge of achieving the desired health outcomes for the population of the state. Theoretically the knobs of organisation, financing, regulation and provision have important implications on the criteria of efficiency, equity, and effectiveness of health care service delivery. It is against this background one needs to assess the performance of the state in assuring access i.e. economic, social and geographical access to health care service, which has further implications for the final health outcome in the state.

Secondly and more importantly, one needs to focus on the extent of health disparities across groups having diverse economic, educational and social backgrounds.

In a developing country like India, where a large proportion of the population lies below the poverty line, achieving health equity is an important goal to ensure the wellbeing and survival of the economically disadvantaged. The question that is raised is whether these inequities are a result of constraints on the supply side, or due to constraints posed by the differential socio-economic positions or socio-economic status (SES). These disparities in health outcomes are matters of concern to policy makers, particularly due to differential health outcomes of the different income and social groups. The term health disparities refers to population-specific differences in the presence of disease, health outcomes, quality of health care and access to health care services that exist across racial and ethnic groups. Disparities represent a lack of efficiency within the health care system and therefore account for unnecessary costs. According to a 2009 study by the Joint Center for Political and Economic studies, eliminating health disparities for minorities would have reduced direct medical care expenditures by \$229.4 billion between 2003 and 2006.

Apart from regular evaluation of public health responsibilities of the state, it is important to assess the performance of the flagship programmes on health which have been considered as vehicles of attaining the desired health outcomes for the population in stipulated time period. There has to be an attempt to assess these flagship programmes like the National Rural Health Mission (NRHM), Integrated Child Development Services (ICDS) etc. critically and constructively so that there could be areas of improvement in performance with the ultimate aim to improve delivery, and hence lead to welfare of the people in the state.

### **Health scenario in Maharashtra**

This paper focusses on following issues

- The current health profile of the state of Maharashtra
- Inter-district performance of Maharashtra in health indicators

As indicated in the Census data of 2011, Maharashtra has made substantial progress in vital indicators; the figures for Birth Rate, Death Rate, Infant Mortality Rate, Maternal

Mortality Rate and Total Fertility Rate are better than the national averages. In the following table (Table 1) Maharashtra's progress in health indicators is compared to two other leading states - Tamil Nadu and Gujarat. Maharashtra, Tamil Nadu and Gujarat are considered to be high growth states and hence, comparison is made among these states to examine whether better economic performance is converted into better health outcomes for the people in the state. As indicated in the table given below, Tamil Nadu has performed well on almost all the health indicators. This may be due to the "universalist" social policies followed by Tamil Nadu which seems to have contributed substantially to improved performance on social and health indicators as compared to Maharashtra and Gujarat. This corroborates the argument made by Jean Dreze and Amartya Sen that growth is not an end in itself; rather it is only a means to achieve Growth-mediated development. They envision a larger role for the state and prescribe state intervention in providing basic social infrastructure such as health care and education. Kerala and Tamil Nadu clearly demonstrate this model in India.

Maharashtra too has succeeded in achieving almost second or third rank in most of the health indicators in India. In fact, Maharashtra along with Kerala and Tamil Nadu are the first to fulfil the Millennium Development Goals (MDG) target of Infant Mortality Rate (IMR), Under 5 Mortality (U5MR) and Maternal Mortality Rate (MMR).

**Table 1: Basic Health Indicators in Maharashtra, Gujrat and Tamil Nadu**

Basic Health Indicators	Maharashtra	Gujarat	Tamil Nadu
Male Life Expectancy (2006-10)	<b>66.75</b>	63.12	67.0
Female Life Expectancy (2006-10)	<b>69.76</b>	64.10	69.75
IMR (Per 1000 live birth 2011)	<b>25</b>	41.0	22
U5MR (Per 1000 live births 2011)	<b>27</b>	52	25
MMR (Per 10000 live birth (2007-09)	<b>87</b>	122	90
Total Fertility (2011-12)	<b>1.8</b>	2.4	1.7
Children who are Undernourished –Stunted (percentage)	<b>39.3(NFHS 3)</b>	51.7	31.1

*Source:* Select socio-economic indicators, National Family Health Survey (NFHS) 3 (2005-06), International Institute for Population Sciences (IIPS), Sample registration system (SRS), Census.

As seen above, under-nutrition in these three supposedly the most advanced states in India is still far from overcome. However, the findings of a study by the International Institute of Population Sciences released in November 2012 are encouraging. They reveal that the mission has led to distinct improvement in nutrition levels. While 39 per cent children had stunted growth in 2005/06, the corresponding figure in 2012 is 22.8 per cent. In the same period, cases of children 'wasting away' have fallen from 19.9 per cent to 15.5 per cent, as has that of underweight children, from 29.6 per cent to 21.8 per cent.

In Maharashtra the percentage of underweight is lower than the national average and in the above study IIPS discovered that stunting, an indicator of chronic malnutrition in children, stood at 22.8 per cent. In 2005-06, the NFHS 3 put the figure at 39 per cent. Underweight, another crucial indicator, dropped from 29 per cent in 2005-06 to 21.8 per cent in 2012. Wasting fell from 20 per cent in 2005-06 to 15.5 per cent this year. State officials said the scientific methodology of the IIPS and NFHS-3 reports are almost similar and, therefore, comparisons are fair. However, disparities which are as per region, urban-rural, gender and across social groups have not reduced much ( <http://www.unicef.org/india/Nutrition.pdf> )

### **Health Infrastructure in Maharashtra**

Maharashtra has better health infrastructure compared to most other states in the country, with the exception of Kerala and Tamil Nadu which are clear outliers due to effective provision and strong presence of public health care services at the primary level. In contrast to this, Maharashtra there is presence of large ‘private’ sector health care services.

As far as the regional distribution of physical health infrastructure is concerned, there is inequity in Maharashtra. Distribution of hospitals in Maharashtra is unequal, only 12 per cent of the hospitals in Maharashtra are in the rural areas; the remaining 88 per cent are in the urban areas. So it is obvious that most people living in rural areas or small cities and towns across the state don’t have access to critical medical facilities including hospitals, medicines, and doctors. The Government’s commitment in ensuring proper medical care as well as pre-emptive care facilities is mentioned regularly in budgets, but somehow the plans are shelved every year, leading to a scarcity of resources to create and maintain the existing health infrastructure. The private sector’s predominance is also a matter of great concern as it leads to relatively higher burden of treatment on the poor. In Maharashtra, only 17 per cent is the share of public health care is in the public sector and 83 per cent is the share of the private sector. As a result, per capita public expenditure on health in Maharashtra is lower than the national expenditure. On the other hand, per capita private expenditure is 83 per cent a much higher figure compared to the national average which 78 per cent. Per capita private expenditure is five times more than the per capita public expenditure (Health Status Report, 2010).

It is also important to evaluate health infrastructure and health care services provided by the Primary Health Centres (PHCs) and Community Health Centres (CHCs) and Sub-centres (SCs) in Maharashtra on the norms given by the of International Physical Health Standard (IPHS). It is important to examine how many health centres in the State come anywhere near fulfilling the ‘minimal grades’ set by the IPHS. In Maharashtra, 15.5 per cent of the Sub-centres do not have regular water supply, while in Kerala this is 13.3 per cent. Nearly, 3.6 per cent sub-centres are not connected by all-weather

motorable roads. Though Maharashtra's health infrastructure is relatively better than many other states in India.(MHR, 2009), the percent of PHCs functioning as per IPHS norms in Maharashtra is 13.36 per cent where as in Tamil Nadu it is 94 per cent. Hence, only if Maharashtra could improve upon these indicators, the objectives laid down for the ambitious programme of NRHM and the visions of NRHM` expressed in terms of provision of 24-hour service at least in 50 per cent of the PHCs`, `ensuring conformation to IPHS at CHCs`, `public-private partnership`, `re-orientating health/medical education to support rural health issues` and health insurance for poor,`pooling of medical care expenses`, will come close to reality.

### **Inter-district disparities in Health indicators in Maharashtra**

As far as socio-economic and health indicators at the inter-state level are concerned, Maharashtra's average is fairly good. However, the state is facing the problem of persistent regional imbalance. There are districts which are performing well on the economic, educational and health indicators, whereas there are districts which lagging behind on all fronts. Some of these districts which have higher proportion of population in socially backward categories are not only backward economically, but are also poorly ranked in terms of health attainments.

Hence, it is strongly contended that instead of discussing the rank in terms of health outcomes or health infrastructure of the state at the national level, it is important to highlight the issue of health inequality within the state. There are signs of large health inequalities across various states. Researchers have examined these health inequalities in the context of prevailing income inequalities in the states.

It has been observed that some states in India which have large income inequalities are also experiencing alarming health inequalities. Unfortunately, Maharashtra falls in this category of high income and high health inequality state. Hence, the comparison between among Tamil Nadu, Gujarat and Maharashtra made earlier becomes more relevant as these three states have been classified as states having high income inequality as well as high health inequality.

So the major concern for Maharashtra should not be whether it is ahead of Gujarat and Tamil Nadu or any other state in India. The focus should be on policies that Maharashtra can adopt to reduce inter-district, inter regional health inequalities existing in the state. There are evidences of health and nutritional inequality across different social groups too. The prevalence of malnourishment was found to be 14 per cent in Scheduled caste and 37 per cent higher in Scheduled tribes as compared with other backward class category. Rankings of the districts based on the severity of malnutrition reveal that the worst performing districts are the ones which have large proportion of SC/ST population. Districts with poor nutritional status, like Nandurbar, Nashik, Amravati, Gadchiroli and Thane are largely inhabited by adivasis that form almost 10 per cent

of the total population of the state (Ladu Singh). It is surprising to know that Nashik is ranked third worst in under nutrition among children, though in terms of economic growth at the district level indicated it was a high growth district in 2010. Hence, Nashik seems to exemplify ‘growth without equity’ (Reference of Planning commission).

The districts where the malnutrition level is severe are also performing badly in other indicators like IMR, TFR and also MMR, reflecting their backwardness. The magnitude of malnutrition may be high due to extreme poverty, socio-cultural practices (especially among the tribal population), lack of availability and accessibility of health infrastructure, health facilities and nutrition linked programmes. Districts like Gadchiroli and Nandurbar have the lowest percentage of normal grade children in Maharashtra; whereas Dhule, Nandurbar, Gadchiroli and Hingoli have very poor achievements in reproductive and child health.

Further, it is observed that the districts like Dhule, Nandurbar (Nashik region), Yavatmal, Washim, Buldhana, Hingoli (Amravati region), Gadchiroli, Chandrapur (Nagpur region) appear repeatedly as ‘worst’ performers. On the other hand districts like Sindhudurga, Mumbai, Ratnagiri (Konkan region), Pune, Satara, Kolhapur (Pune Region) and Nagpur, Wardha (Nagpur region) appear as ‘best’ performers in the state in most of the health indicators. This clearly indicates that Maharashtra is suffering from not only inter-district but inter-regional health inequalities. Whether this has something to do with the historically poor political representation from some these districts needs to be examined.

Life expectancy at birth (LEB) is considered to be an important indicator of health status in any country. In Maharashtra, the urban LEB is significantly higher than rural areas and the difference between urban and rural LEBs has slightly increased in the last 20 years. Another important indicator of health status is the Infant Mortality Rate (IMR). The comparison of IMR is given in the Table 2 below. There is a difference of 15 points between rural IMR and urban IMR in Maharashtra, indicating large inequality in IMR.

**Table 2: Infant Mortality Rate**

Best	Worst
Sangli (16)	Wardha (44)
Konkan (19)	Yavatmal (37)
Chandrapur (21)	Washim (37)
Sindhudurga (23)	Bhandara (37)

*Source:* Health Status Report Maharashtra, 2010

In case of under-five mortality (U5MR) too, one observes rural- urban disparity. The rural U5MR is 43 whereas the urban U5MR is 26; while the difference between male and female U5MR at the state level is 8 points. Pune and Konkan region are performing much better than others in UMR as seen in the table above.

As far as Total Fertility Rate (TFR) is concerned, there is significant disparity between Konkan and Marathwada regions as seen in the Table 3 below. In Institutional births too, Konkan seems to be performing better than others as seen further below in Table 4. MMR, IMR and U5MR are closely linked to maternal health, and better reproductive and child health is assured by better health care during pregnancy period. Hence Auxillary Nurse and Midwife (ANM) visit is an important indicator to assess mother and child health. Even in case of ANM visits by mothers, Konkan division seem to be leading, and Aurangabad and Nashik divisions seem to be “laggards”.

**Table 3: Total Fertility Rate**

Best	Worst
Sindhudurga (1.70)	Beed (2.63)
Mumbai (1.68)	Buldhana (2.65)
Ratnagiri (1.62)	Jalana (2.67)
Chandrapur (1.59)	Hingoli (2.57)

**Table 4: Institutional Births (percentage)**

Best	Worst
Mumbai (93.3)	Nandurbar (25.3)
Sindhudurga (92.6)	Yavatmal (53.5)
Kolhapur (89.6)	Gadchiroli (23.6)
Satara (87.4)	Chandrapur (41.5)

**Table 5: Mothers with at least 3 ANM visits**

Best	Worst
Sindhudurga (92.3)	Dhule (51.7)
Satara (93.5)	Beed (59.2)
Nagpur (95.0)	Aurangabad (58.0)
Mumbai (91.7)	Nandurbar (38.3)

Source: Table 3-Table 5, Health Status Report Maharashtra, (2010)

The inter-district analysis clearly reveals that there is health disparity in the state. The economic indicators and social indicators are expected to go hand in hand with the health indicators. It is important to understand the social determinants of health-poverty, nutrition, access to drinking water and sanitation and educational levels. Unless the state focusses on the investment in Social determinants of Health (SDH) and the other supplementary programmes to ensure income security to poor and the vulnerable sections, the dream of health for all will be a distant dream for the state.

From the policy perspectives, the larger question that the state needs to answer is, as income alone does not determine the health outcomes, what kind of social policies

the state could adopt to reduce the health inequalities. The focus need not be only restricted to just the expansion of medical facilities but the state can make investments in interventions which improve basic education, water and sanitation and housing conditions of the poor. These are broadly considered as the social determinants of health.

## Conclusions

If one goes by the latest Human Development Report of the state, the health scenario in Maharashtra though better than the other states, although it lags behind Kerala on many fronts. However, there are large intra-state disparities in the health achievements of Maharashtra, which is a matter of serious concern. 'Health for all by 2000 AD' was the slogan adopted by the world at the Alma-Ata Conference in 1978 in which health was recognised as a fundamental entitlement. Throughout the world there was an affirmation of the fact that primary health care is essential to achieving an acceptable level of health as an integral part of social development to achieve the objective of social justice. However, health for all is still a distant dream for many in our country.

Maharashtra has demonstrated a model of economic growth for the nation but the health attainments are not fully reflective of the progress achieved in economic indicators. This is basically due to health disparities prevailing at the regional level. Certain districts are marching ahead with socio-economic and health improvements whereas laggards are districts which are experiencing backwardness in different aspects of development including health. Unless the state focusses on the investment in Social determinants of Health (SDH) and the other supplementary programmes to ensure income security to poor and the vulnerable sections mainly in the backward districts, the dream of health for all will be a distant dream for the state.

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