Conclusions and Recommendations
CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

The New Public Management (NPM) in healthcare service delivery is a recent initiative. It highlights the application of business management tools in the public system hoping to increase public accountability and consumer satisfaction. Especially, it was employed for healthcare to improve the quality of care, ensure accountability and patient satisfaction. We have seen that the doctrines of the NPM, including 'autonomy', especially functional and operational autonomy, have played a significant role in public service delivery. Hospital autonomy, and purchaser and provider split are considered important components of the New Public System Management (NPSM).

The core idea of the NPM was derived from economic theories, including public choice and principle agent theories. Initially, this process began in the developed nations, such as the United Kingdom (UK), United States of America (USA) and other developed nations. Later, the same doctrines appeared in Latin American countries. Later, a similar kind of reform process was seen in the African nations through the World Bank aided projects. Finally, this reform process also influenced the Asian continent. In the early 20th century, almost all countries across the globe witnessed the reform process in public service delivery. Literature shows that initially, the public sector reform took place in the non-service sector, later, a paradigm shift occurred in the social welfare programme, especially in healthcare services.
Theoretically, the NPM aims to ensure economy, efficiency and effectiveness in the public-funded service delivery system. It has shown that there are limited empirical evidences for the implications of the NPM on healthcare service delivery, including service access, the concept of affordability and user charges. Literature shows the following as the main reason for the existence of the NPM: taxpayers were not satisfied with the traditional public management practice which resulted in poor performance, lack of accountability and corruption among the service providers. And the reasons for the reforms process include the uncertainty in macro economics, including global economics, financial and oil crisis.

Governance reform in the public sector can be observed in three main categories. Firstly, civil service reforms, performance-based pay or promotion and Performance Based Budgeting (PBB) have been introduced in governmental departments as a part of a routine procedure. Secondly, the larger sphere of governance involves efforts initiated by the civil society, such as Non-Governmental Organizations (NGO’s) national and multinational donor agencies. Thirdly, the NPM model were emerged in the form of the collaborative ventures across the globe and with different stakeholders, creation of semi-government bodies or autonomous bodies or quasi-government, Public Private Partnerships (PPP) and outsourcing of healthcare services, including clinical and non-clinical services.

In general, the NPM model insisted structural reforms at the central, state and local level delivery of healthcare services. Review shows that majority of the NPM models focused upon the clinical and curative services. There is need for epidemiological data
for further policy planning in countries like India, where social and economic factors are considered to be important determinants of health.

In the field of healthcare, the NPM emerged both clinical and non-clinical services in the developed and developing regions. Public sector entities behaved as if they were private bodies. Different forms of the NPM emerged in public healthcare. These include promoting Public Private Mix (PPM) in clinical and non-clinical services, outsourcing, hospital autonomy, creation of autonomous or semi-government bodies, decentralization and introduction of user charges. However, limited empirical evidence is available to showcase implications of the NPM in the public healthcare service delivery. Therefore, in order to explore the operational and functional aspects, and impact of the NPM in the healthcare service delivery, the Tamil Nadu Medical Services Corporation Limited (TNMSC) was chosen for the study.

This chapter presents a comprehensive analysis of the extent of role of an autonomous organization in drug management. It includes corporation strategy for drug procurement process, drug supply and distribution. And finally the assessment of implications on efficiency, equity, accountability and quality of healthcare service. The TNMSC model is a unique model; it represents public sector reforms within the system itself. Being of recent origin, it could lead to significant gains in efficiency, effectiveness, public accountability and quality of care.

This study examined some aspects of the relevance of the New Public Management (NPM) and healthcare services from a theoretical and empirical perspective. The study explored the role of TNMSC in drug management the public healthcare services
in Vellore district, Tamil Nadu. TNMSC includes the district Head Quarter (HQ) hospital at Wallajapettai, Taluk HQ hospital at Tirupputtur, Primary Health Centers (PHC) at Pudupettai and Pudurnadu, and also the District Drug Warehouse (DDWH) and TNMSC HQ. The study covered these institutions to understand the working of drug management through the TNMSC.

This field study involved an attempt to examine the process and implementation of a drug management policy in the government healthcare institutions in Vellore district, Tamil Nadu. The study also focused upon service access and the availability of medicines to poor patients in the government healthcare institutions. It further explored functions of TNMSC, including drug procurement, drug supply, quality control, drug delivery mechanisms at various healthcare organizational levels and also studied the accountability of staff working in the government health facilities at the level of physicians, pharmacists and village health nurses, patients' (OP, IP and delivery cases) feedback on the availability of drugs, quality of drugs in government hospitals, utilization of drugs, timely availability of drugs, cost of healthcare, health service access and people's preference to healthcare services.

A system perspective and case study method was followed to study the operational and functional aspects of TNMSC. The research design focused on identifying the components of the healthcare service delivery system and their relationships. A variety of research tools, such as semi-structured interview schedule, Focus Group Discussion (FGD) guidelines and checklist for health facility institution information, check lists for DDWH and TNMSC HQ were used for the study. The primary data collection was carried out in three different phases, including pre-pilot to collect the
district baseline data and finalization of study units, including Taluk HQ hospital, PHCs at Pudurnadu village and Pudupettai village. A pre-test was conducted to finalize research tools for final data collection. Individual interviews, FGD and observation method was used to gather information. Apart from this, official reports were used to study and gather information related to financial allocations for purchase of drugs and health facility performance, including Out-patients (OP), In-patients (IP) and institutional delivery.

The main finding of the study exhibited that TNMSC model ensured efficient system of drug selection, drug procurement, drug distribution, quality control and delivery mechanisms through DDWH. Initially, the idea of creating an autonomous organization for drug delivery mechanisms in the Tamil Nadu public healthcare service delivery system, especially for drug procurement and distribution, was propounded by civil servants. The salient features of TNMSC model, especially the functional autonomy with legal sanctions, considerably fit into the framework of doctrines of the NPM. These kinds of reforms are considered to be the third category of the NPM practice.

TNMSC system assured the ready and timely availability of essential drugs at the health facility level, particularly at the PHC. TNMSC created a list of 268 essential drugs from the previous list of 900-1000 type of drugs for satisfying the healthcare needs of the majority of the population meant to be treated for commonly prevalent diseases. The list is almost similar to the World Health Organization (WHO) list of essential drugs. It has shown increased supply and availability of drugs in the public health system. The reason for separating drug delivery mechanisms from the health
facility institutions and shifting it to an autonomous organization was to ensure a neutral response to the complex problems such as:

a. Bulk purchase of drugs without considering the hospital requirement,
b. Loose form of drug supply,
c. Possibility of early expiry,
d. Different rates for drugs,
e. Delays in supply of drugs to the hospitals,
f. Poor drug quality due to lack of proper quality control mechanisms, and
g. Lack of autonomy (financial and managerial) of the corporation to procure and distribute drugs to the public healthcare organizations.

The summary of the observations, findings and recommendations are given in the following sections:

I. Reasons for establishing TNMSC for drug delivery in the public health service delivery are as follows:

a) To separate the drug delivery functions from the MoH to the autonomous organization.
b) To increase managerial autonomy to conduct its own affairs.
c) To ensure ready availability of essential drugs in the public health institutions.
d) To free the drug delivery system from the rigid system.
e) To improve overall public image of the availability of drugs in the public health system.
f) To improve the quality of care.
g) To ensure quality control mechanism for drugs.

II: The lessons learnt from the TNMSC model of drug delivery helped in efficient use of funds to procure drugs at a competitive price.

a) The previous drug delivery system resulted in purchase of huge unwanted drugs, lack of drug storage facilities; poor drug delivery mechanisms to the health facilities, enormous possibility for corruption and that followed a complex procedure for overall drug management. Therefore, TNMSC was considered to be an alternative framework for Tamil Nadu government to improve the drug management.

b) TNMSC model of drug delivery performed positively because of the efficient drug procurement with minimum administrative cost. TNMSC considerably reduced the drug prices while maintaining a reliable drug supply mechanism. The administrative cost in running TNMSC is in the range of 0.5% to 1% by ensuring a simple procedure in bulk and simplified procurement system Sakthivel (2005).

c) Efficient procurement includes preparation of an essential drug list, assessment of the quantity of drugs needed, quality assurance from suppliers, procurement process, logistics and supply chain management, prompt payment to suppliers, and also timely supply of essential drugs to the public healthcare facilities through DDWHs.

d) The essential drugs are purchased only from pharmaceutical companies who follow the good manufacturing practices stipulated by the drug control authorities and TNMSC. Drugs are specifically packed in strips and blisters and marked as T/G, implying Tamil Nadu Government supply and not for sale.
e) Availability of drugs and their utilization have improved in the public health facility.

III. It is found that the beneficiaries of public health facilities were mostly women, children, school students and aged from the poorer sections of the society. Many of the patients regularly used the government health facility due to easy access to public healthcare services, availability of doctors in the health facilities, timely availability of medicine and immediate attention paid to the patients.

a) Hospital performance, especially OP registration has gone up but the IP and institutional delivery remain constant. Poor patients were not forced to access private healthcare facility as well as agricultural labour was not losing wages. Also, over crowding and waiting time for treatment was reduced.

b) The village is connected with transport facility but, in tribal area, the road and transport facilities are very poor. Service access is determined on a geographical basis, especially for those living close to the hospital, and also access is determined on the basis of ability to pay for service.

IV. Tamil Nadu healthcare services delivery system appears to be a well-knit system. This could be due to the increasing literacy rate of the general population, especially female, the rural literacy rate, health awareness and increasing medical care facility. We could conclude that the introduction of reform strategy in the already positively performing healthcare service delivery system might bring again positive results, but there are no such empirical studies to prove the success of reforms in poor performing
healthcare delivery systems. TNMSC is not allowing any private organizations or NGOs in any of the processes of drug management.

V. TNMSC model has shown a positive trend in the public health service delivery system, especially in procurement and supply of essential drugs.

a) It could be the competitive bidding process with multiple drug suppliers that has helped in purchase of superior quality drugs at a cheaper price.

b) Better use of professional management tools and techniques, including the Board of Directors (BoD), for policy level decision making, but the board is still dominated by staff of the department of health and Managing Director (MD) for day-to-day operational and managerial functions.

c) Increased approach towards organizational design, including application of management strategy, in drug procurement and distribution.

d) Quality control mechanisms to ensure superior quality drugs.

e) Reason could be the nature of autonomy as decision took place only at one level, resulting in flexibility, openness, transparency and a streamlined system.

f) TNMSC structure and functions are to be lean and less hierarchical in nature.

g) Further, we can interpret the findings as highlighting the role of centralized agency in efficient delivery of essential drugs at the health facilities, especially PHC’s and Health Sub-centers (HSC).
VI. TNMSC has set up DDWH at the district HQ, from where suppliers are expected to deliver after passing the QC test. It will then process to deliver to the health facilities. A pass book system has been introduced wherein the monthly entitlement of each facility is given while for PHC, District HQ and Taluk HQ it is given for 15 days. The medical institution can obtain any drug in the approval list if funds are available in the pass book.

VII. TNMSC uses the Management Information System (MIS) for data management in different District Drug Warehouses (DDWH) and from time-to-time updates drug position at the DDWH level to the HQ office. There are upgraded software-ORACLE, for handling high volume of data. This has helped in immediate updates of stock position and drugs to be purchased in the near future. It has also helped in immediate solution for drug scarcity, eliminated early drug expiry and also ensured need based drug supply to the health facilities.

VIII. Drugs are purchased through open tender system and are delivered directly to district level stores (DDWH). Drugs are purchased in bulk to avoid the poor quality of supply as well as to prevent middlemen (retailers) involvement in any of the processes. TNMSC maintains quality assurance for all drugs. Therefore, the rigorous quality control mechanisms have helped in maintaining standards in the drug quality. As per the data from 1998-2004, more than 96% of the samples passed the quality control test.

IX. Almost all patients noted that in their previous visits they were never sent outside to buy medicines. Patients are satisfied with timely availability of drugs as well as with the physicians in all the health facilities. Equity and access issues have not been compromised. Both the staff members and
patients agreed that TNMSC model of drug delivery system is comparatively better than the earlier one. Free medical care facilities, including medicine, doctor’s consultancy fee and other facilities are provided to the poor patients. Almost all the respondents reflected on the pioneering role of TNMSC in the provision of superior quality drugs to the poor patients through government health facilities.

X. TNMSC model of drug management is a potentially important means to understand the relevance of financial and managerial autonomy in the public health delivery system. Some scholars attribute the success of TNMSC to the financial and managerial flexibility (Bennett and Muraleedharan: 2000).

Overview and Looking Ahead

TNMSC experience with drug management provides a number of key lessons in ensuring essential drugs at the public health facility. The finding from the study raises several issues regarding the relationship between an autonomous organization and healthcare service delivery system. In our analysis, we could draw that the autonomous organizations, especially TNMSC model of service delivery, could be considered to be the NPM model due to its legal sanctions, functional flexibility and independent board to decide on policy matters. These observations indicated the central role of TNMSC in providing essential drugs to the health facilities. Certain problems have been identified, including meager referral services at the PHC, which adversely affected the service access. This particular problem aroused due to lack of availability of ambulance facility at the PHC level. Only selected drugs (i.e. 55 items)
are available at the PHC level (see Appendix III), on a positive note, it could ensure the functioning of referral service to the next level health facility institutions.

At the PHC level, each health facility has to depend upon the block PHC vehicle for drug transportation from the DDWH. There is immediate requirement for vehicle facility for drug transportation from DDWH to the PHCs. Each health facility showed limited or poor availability of infrastructure facility, including staff quarters. The study revealed the shortage of human resources both at medical and paramedical level. Availability of computers at the health facility level would ensure. It could be utilized for management of health facility information system, including drug register and health performance. There is need for sensitization of the beneficiaries with regard to health awareness and the services.

There is an immediate requirement for improving certain basic facilities at the taluk HQ hospital, including regular supply of water facility in the patient toilet, laundry facility, especially for washing pillow covers, bed sheets, and housekeeping facility in the hospital premises. There is a need to review the financial allocation and mobilization of additional sources for further expanding and maintaining health facility services and purchase of equipments. Since, the public system showed limited availability of funds, there is a need for mobilizing funds from other sources. It could be possible through encouraging resource mobilization strategy, including induction of the private ward facility, for generating additional sources of revenue for further expansion and maintenance of the existing facility. It is necessary to provide high degree of technical and administrative competence among the service providers, especially the physicians.
Countries like India need major structural changes in the public health system, especially incorporation of professional management techniques and tools to improve and enhance the quality of curative service and promoting accountability among the service providers in the health system. There is sufficient evidence to show the problem of meager budgetary allocations to healthcare, poor maintenance of public hospitals and government inability to raise or enhance resources. Findings of the study show the poor classification of Above Poverty Line (APL) and Below Poverty Line (BPL) category. Patients classification is a necessary step to generate health facility revenue. It will improve the additional sources of revenue through user fees from APL patients. Also, there is need for technically trained manpower for hospital management at all levels. Strategic management tools and techniques could be incorporated in the public health facility management. There is a requirement for regular systemic policy review and policy analysis at health facility institutions to draw from its strengths and weaknesses.

It is evident that there is a feeling of low work morale among the PHC level health facility staff, including field staff. It could be due to the poor availability of infrastructure facility and availability of limited promotional avenues and other facilities. The overall finding of the study shows high levels of vacant positions, especially the group IV staff, including hospital workers, sanitary workers and ambulance drivers. We have to strengthen field-based activities at the village level, especially organizing rural medical camp, regular school health programmes, regular health check up campaigns for national health programmes, etc. There is a need to set up an independent advisory body to decide internal matters related to health facility management. It is also important to improve or outsource certain non-clinical
services; including the waste disposal management, transportation of drugs from DDWH to the health facilities, housekeeping, security services, laundry services and two-wheeler parking.

In our view there is a need to improve and increase the infrastructural facilities, including human resources (medical, para-medical staff and group IV staff) in the public health system. We also suggest all types of drugs should be made available at all places. There is a need to strengthen essential public health services provision through community mobilization and people’s participation. In our view, the existing plan priorities shall be to take necessary steps to provide for adequate funds, technology and professional management capacity to the human resource for a quick and satisfactory delivery system. It is generally felt that the delivery system for social welfare services has been weak and ill-designed.

The relevance of the doctrine of the NPM in the public healthcare service delivery is neither good nor bad, but it is evident that TNMSC has played a significant role in ensuring essential drugs. TNMSC is also recognized as an ISO 9000-2001 and has also secured the Rajiv Gandhi Quality Award. Based on the study, we can conclude that the emerging healthcare model requires structural changes. This includes appropriate policy and delivery mechanisms for coping with the growing population needs and its complex problems. This decade has witnessed a growing demand for health sector reforms and upgraded infrastructural facilities. In the public health system, essential pillars like greater efficiency, cost consciousness (effective cost recovery mechanism), staff accountability, timely available services
and better use of professional management tools and techniques can be achieved by introducing the resource mapping techniques.

**Further Research in this Area**

While studying the literature on the relevance of the NPM and healthcare service delivery, many areas which require further research were identified. Our study has shown the structural, functional and operational aspects of drug management through TNMSC in the public healthcare service delivery. There is a need for empirical studies and institutional assessment with regard to implementation, particularly at the village level, to prove its efficiency and efficacy. For the management of health services, it may be valuable to study the patient relations management, corporate governance, including the board’s decision making process and its compositions, internal or external pressures, for policy level influence. Further studies could highlight quality management and the management fashions, including the current practice of performance-based budget allocations to the health facility. And also an in-depth empirical study needed for understanding the epidemiological trend necessary to find out the lacunae and to take necessary corrective measures.

In conclusion, TNMSC has considerably improved the quality of drugs, especially in its efforts to provide timely availability of superior quality drugs in public healthcare institutions. The out-of-pocket spending on drugs by households in India is extremely high. According to Sakthivel (2005), “There is very low level of government funding for healthcare in India with less than 4% of total government resources being allocated to healthcare expenditure funded by the government while nearly 80% of expenditure is funded privately, mostly through out-of-pocket payments. Thus, the
burden for funding healthcare falls heavily on households. 70/% of the out-of-pocket payments are attributable to the purchase of drugs and doctors fees. The success of TNMSC in drug procurement, drug supply and drug management could be replicated in other states as well.

Financial and managerial autonomy could be viewed as a doctrine of 'lean management'; it led to the success of TNMSC in drug management. It is evident that the government could be part of the NPM and also retain control over quality, cost management, price of service provided and equity, including affordability of the poor sections of the society. Finally, there is a need to strengthen regular review to assess the infrastructural facilities, overall programme monitoring, evaluation, more functional categorization and concurrent audit in the public healthcare delivery system.

The case study shows an improvement in the procurement system and quality of procedures. We have also seen that the NPM model of interventions in social welfare services, especially healthcare service delivery, cannot be viewed as a permanent solution. While considering sustainability of programmes, the state has to take further follow up. The drug delivery system in Tamil Nadu is quasi-government function. The study showed that the public system has failed to address the issue of providing infrastructural facility, increased number of physicians, paramedical and group IV staff.

Considering the current changes and multiple complexities in the public healthcare delivery system (such issues: poor medical supply, shortage of manpower, non
availability of medical care (lab) facility, budget cut and increasing rate of out-of-pocket expenditure), we propose there is a greater need for application of another paradigm called 'Strategic Public Management (SPM)'. It includes promoting strategic management techniques, change management and value creation for anticipating the future, and finally to address the issues related to lack of commitment, absenteeism and ideological orientation towards the public system. It is necessary to look for an alternative system to reduce high level of out-of-pocket expenditure of the poor patients, productivity, quality and patient satisfaction. And, such an alternative system would help in transcending the well publicized image of the public sector health services as corrupt, inefficient and of poor quality.