Replicating Tamil Nadu's Drug Procurement Model

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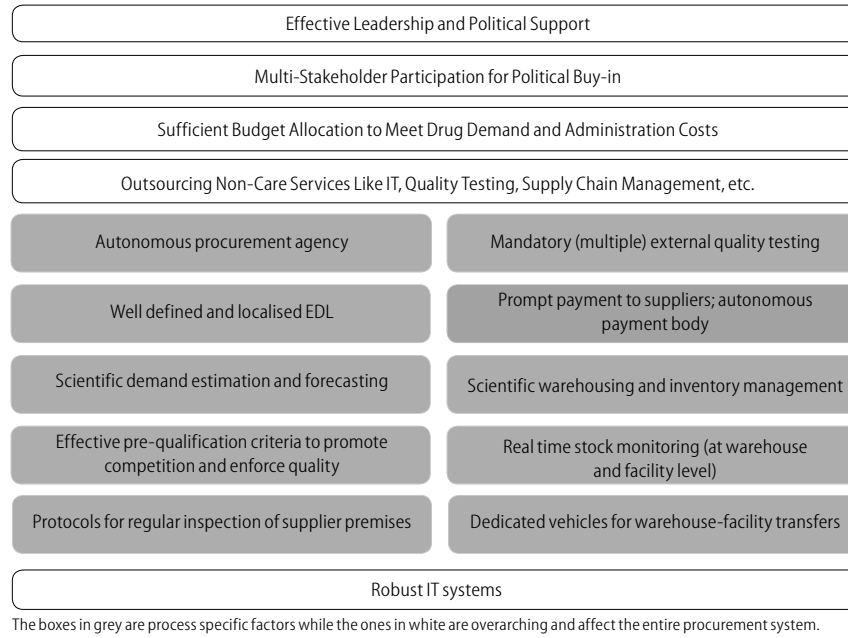
Most states are attempting to copy the Tamil Nadu Medical Services Corporation's model of centralised tendering and purchase of drugs. A study of the Kerala Medical Services Corporation and Odisha's State Drug Management Unit shows that imitating the original model without factoring in the local context and building up the processes does not lead to success. While Kerala has adapted the Tamil Nadu model and even added innovations, Odisha's experiment has had dismal results.

With the aim of studying the public drug procurement models, our visits to the states of Tamil Nadu, Kerala, Odisha and Maharashtra prompted us to notice some rather intriguing similarities and differences in their procurement models. Most states are trying to emulate the Tamil Nadu Medical Services Corporation (TNMSC) model of centralised tendering and purchasing to improve drug accessibility and reduce its consequent financial burden on the state and individuals. This model is recommended to all the other states by several organisations like the World Bank, the World Health Organisation, the Department for International Development and the High-Level Expert Group (HLEG) constituted recently to propose methodologies of Universal Health Care (UHC) in India (High Level Expert Group 2011). Several states like Kerala, Odisha, Andhra Pradesh, Delhi and Assam have already adopted this system with some state-specific changes and many more like Karnataka, Maharashtra and Bihar are in the process of doing so. However, less attention has been paid to how the states are able to cope with these systemic changes and few questions have been asked about the ease or validity of the replication. How have the other states rolled out the TNMSC model? While the TNMSC model has worked well in the context of Tamil Nadu, it may not be sensible to just engineer the same model in other states where the local context and needs may be very different.

Critical Success Factors

The TNMSC was incorporated in the wake of a massive drug scam in Tamil Nadu; following which it introduced multiple reforms and streamlined its drug purchase, storage and distribution systems through the medical services corporation in 1994. More interestingly, the incorporation happened through a government order, which is very rare in our political system. The TNMSC does central tendering and purchasing of the essential drugs for the entire state that are delivered to the district warehouses by the supplier in stipulated quantities. From here the drugs are distributed to the facilities based on a value-based passbook system (each facility is allotted a fixed amount and can requisition for any quantity of drugs in the Essential Drug List (EDL) within that amount). The system is claimed to be efficient and

Figure 1: Critical Success Factors for TNMSC Model of Public Drug Procurement



The boxes in grey are process specific factors while the ones in white are overarching and affect the entire procurement system.

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Figure 2: Procurement Process Comparison in Kerala, Odisha and Tamil Nadu

Parameter	Kerala	Odisha	Tamil Nadu
Legal status of procurement organisation	Autonomous	Government owned	Autonomous
Per capita drug procurement budget (INR)	51 (2011-12)	8.8 (2010-11)	22.5 (2010-11)
Essential drug list			
Customised state EDL	Yes	Yes	Yes
Frequency of EDL revision	1 year	2 years	1 year
Time for EDL preparation/revision	2-3 months	7-8 months	2-3 months
Demand estimation of drugs and forecast			
Methodology for estimation (facility level)	10 - 15% over previous year's indent; performed by facility pharmacist	No scienfitic method; usually performed by computer operator/ clerk	10% of the previous year consumption
Procurement process			
Procurement mechanism in the state	Centralised procurement at state level	80% centralised state procurement; 20% decentralised district procurement	90% centralised state procurement; 10% decentralised district procurement
Emergency drug budget allocation	Yes (additional funds released)	No (purchased from existing budget)	Yes (additional funds released)
Minimum turnover pre-qualification criteria	INR 10 crore	INR 10 crore	INR 35 lakh
Minimum market standing (years)	2	3	3
Exclusion criteria for factory inspections	Supply to premier institutions like AIIMS	None	None
Pre-identified list reserved for SSIs/ PSUs	None	31 Items (for SSIs)	None
Quality control			
External quality testing of every consignment	Yes (empanelled labs)	No	Yes (empanelled labs)
Testing before distribution	Mandatory	Not mandatory	Mandatory
Lead time for quality testing	~ 15 days	~ 56 days	~15 days (tablets); ~30 days (suspension)
Payment mechanisms			
Payment department status	Autonomous from government	Government (account general's office)	Autonomous from government
Lead time for payment	~ 30 days	n/a	30 days
Inventory management and distribution			
Scientific warehousing practices	Yes	No	Yes
Supply chain management	Outsourced	In-house	In-house
Inventory management	Dynamic (flexibility of 2nd purchase order)	Static (single purchase order issued)	Dynamic (flexibility of 2nd purchase order)
Flexibility for facilities to alter indent	Yes (Just before despatch)	No	No
Tracking dispatched/delivered drugs	Volume based passbook	No tracking	Value based passbook
(Scientific) inventory management at facility	No	No	No

Source: Personal interviews with leadership teams of the states' procurement agencies.

transparent and relies on outsourcing and extensive use of information technology (IT). Several reports and articles have recorded the success of the TNMSC. According to the Drug and Food Regulation Authority, all the patients visiting government health facilities (equivalent to almost 40% of all patients as per the NSSO 60th round) have received all their medicines for free in Tamil Nadu (Drugs and Food Regulation 2011). Our study of the TNMSC and review of existing literature (Narayanan 2010) of its model enabled us to draw up a set of points that we opine as the critical success factors.

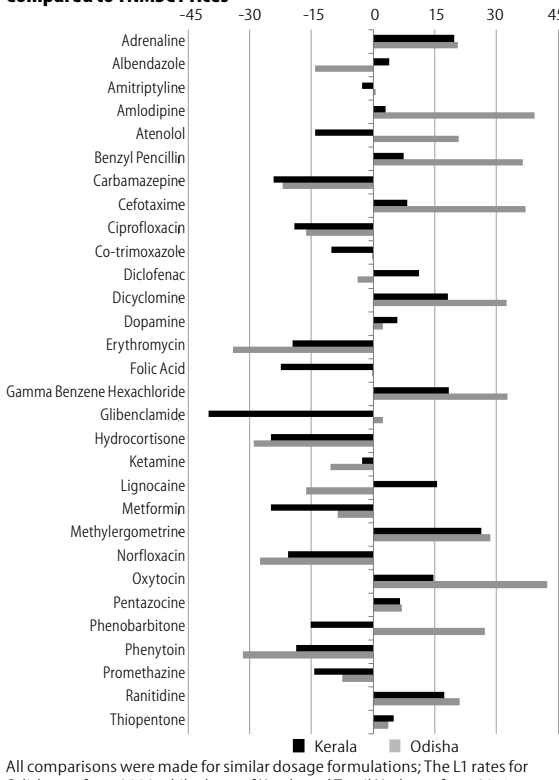
A centralised system of drug procurement needs trained personnel, streamlined processes, infrastructure and IT enablement in order to procure, store and distribute the large quantities of drugs required to user institutions with minimal delays. This requires a significant budget to cover the fixed costs incurred before benefiting from the bulk discounts on drugs. Tamil Nadu had a budget of Rs 182 crore for 2010-11 (giving a per capita drug procurement budget of Rs 22.5), for procuring about 260 essential drugs. The TNMSC has been constituted as an autonomous agency consisting of government deputed Indian Administrative Service (IAS) officers and technically qualified contractual staff. This is critical to avoid cumbersome bureaucratic processes and to improve efficiency from tendering to payment disbursements. Also, the TNMSC board consists of people from different fields making it a multi-stakeholder composition for easier and stronger political support.

An effective centralised procurement organisation should be spearheaded by an effective leader who can run the autonomous agency like a for-profit entity while keeping in mind the public health needs (medicine availability, affordability, quality, etc). While these were some of the overarching points, processes for the formation of the state's EDL, tender pre-qualification criteria, tendering terms and conditions and the tender process itself are very important.

The centralised pooled procurement mechanism is not a panacea to mitigate issues of corruption, drug affordability, availability and quality in the public health system; these issues may still be prevalent and some checks and balances must be in place to prevent them. Such processes are implicit and are usually much harder to replicate. We believe that this fact is noteworthy because, the TNMSC and centralised pooled procurement are used interchangeably (and incorrectly) in the public domain. Figure 1 (p 26) is a mapping of the critical success factors for the TNMSC based on observations and literature review.

We have focused on the experiences of two states – Kerala and Odisha – that have gone a long way into incorporating the TNMSC model, but with different local contexts and outcomes. While Kerala has successfully adopted, modified and customised it to suit the local context, Odisha is grappling with several monetary, administrative and infrastructural challenges

Figure 3: Variance in Procurement Prices (Per Tablet/Vial/Amp) Compared to TNMSC Prices



All comparisons were made for similar dosage formulations; The L1 rates for Odisha are from 2009 while those of Kerala and Tamil Nadu are from 2011.
Source: The L1 rates were obtained from the state procurement organisations.

that prevent it from accruing the advertised benefits. Needless to say, the modifications to the TNMSC model in both these states have been so stark that their resemblance to the TNMSC is currently very little.

Strong Leadership

Kerala had brought about changes in the drug procurement landscape in 2008, when it shifted to centralised tendering and purchasing inspired by the TNMSC. The Kerala Medical Services Corporation Limited (KMSCL) was incorporated in 2008 and currently has an annual drug procurement budget of almost Rs 170 crore (translating into a per capita of Rs 51). In the initial phase, the KMSCL was brought under scrutiny for its malfunctioning. Some of the issues included the presence of substandard and spurious drugs; unscientific ways of preparing the EDL, forecasting demand, procuring and storing drugs, etc, and posed grave problems to the system. With the advent of a strong leadership in the KMSCL in 2010, much positive progress was recorded. The existence of a strong doctor-retailer-private manufacturer nexus and the preference of the people of Kerala to consume branded medicines, which are perceived to be of high quality, necessitated the introduction of several changes. Thus, bidding was opened for branded generics and today the KMSCL procures more branded generics than pure generics. With the opening up of tendering to branded generic manufacturers, the minimum annual turnover criteria for tendering companies was fixed at Rs 10 crore (up from the initial Rs 20 lakh) along with a minimum market standing of three years with some special relaxations for small scale industries (SSI) and public sector units. These criteria not only deterred the unreliable suppliers who may otherwise have participated in the tendering process but also influenced competition only marginally (by keeping the minimum turnover relatively low). These criteria are markedly different from those of the TNMSC where the minimum annual turnover is set at Rs 35 lakh.

The KMSCL now has its own customised IT system that includes real time stock monitoring and thus promises more effective forecasting than that of the TNMSC (KMSCL is not only patenting this IT solution but is also facilitating its implementation in other states). The IT usage is being extended even to the last mile user institutions to create a common platform for an accurate and scientific way of indenting drug requirement.

The KMSCL has improvised the TNMSC's value-based drug allotment to create a volume-based indenting where the facilities submit a quarterly and annual indent of drug requirement, against which it delivers. Yet another change over the TNMSC model is to make centralised purchasing for all the drugs unlike in the TNMSC where 90% of funds are used for purchasing at the central level and 10% at the district level. The 10% district allotment in Tamil Nadu is given to meet any emergencies and other contingencies; the KMSCL claims to be able to deal with emergencies through the release of additional funds from the state government; and contingencies do not arise since it offers the facilities a flexibility to alter their indents several times. Since the incorporation of the said changes, the KMSCL has been touted to function very well in its autonomy and under the current leadership. However, the current system looks markedly different from the original TNMSC model and its processes.

A Long Way To Go

Odisha, on the other hand, provided a rather grim picture of its adaptation story. With a minimal drug procurement budget of Rs 37 crore in 2010-11 (per capita Rs 8.8; incidentally, this budget allotment is up from Rs 16 crore during 2009-10 that translates into a per capita of Rs 3.8), Odisha has a lot to build before it can successfully accrue the benefits of a centralised purchasing model like the TNMSC. One of the important factors of the TNMSC is the autonomy, coupled with able leadership that is able to step aside from the bureaucratic hassles and make decisions promptly and independently.

In Odisha, the State Drug Management Unit (SDMU; the central drug purchasing agency) is a part of the directorate of health services and lacks such autonomy. Moreover, the success of the TNMSC lies in its processes that have been gradually set up with the help of the available resources in the state. These processes are implicit and entrenched in the state contexts making their duplication in a completely different context difficult/invalid. While this holds true for any state, Odisha gives us clear evidence in this regard. Despite the centralised tendering and purchasing, the system is grappling with systemic problems of governance, poor political support, ineffective leadership and constant reshuffling in the key positions when trying to push for reforms.

State representatives shared how firm leadership for the SDMU could not be established due to several political reasons garnering less hope for any change. Illustrating an instance of poor system, the strong SSI lobby in the state moved the high court to grant a stay order on the tendering process.

This was done to protest the SDMU's change in the minimum annual turnover criteria to Rs 10 crore from Rs 10 lakh. This order stalled the tendering process in the state for two years rendering the system helpless. Odisha clearly seems to illustrate that replicating the TNMSC model in a state will come with its own set of issues and the state needs to understand and anticipate these issues and make effective changes to suit the local context and demand. Sometimes, it is even important to look at the existing systems in place and see if changes or improvements can be made before changing the entire landscape.

Figure 2 (p 27) provides a snapshot of a few similarities and differences in the procurement processes in Kerala, Odisha and Tamil Nadu.

Another important factor to compare and contrast these centralised drug purchasing models is the procurement price. Figure 3 (p 28) provides the variance of procurement prices for 30 molecules across the three states with the TNMSC prices as the reference. Supporting intuition, the mean variance of KMSCL is -3.1% while that of Odisha is 4.4%. The fuzzy nature of the variance plot can be attributed to multiple factors like type of manufacturer (SSI/PSU/non-SSI), tender quantity, supplier's economy of scale, supplier's factory location, stringency of the quality checks, etc. While understanding the correlations between these parameters and the procurement price is a detailed exercise in itself, one fact stands clear in the plot. It is possible to achieve prices lower than that of the TNMSC and the prices do not exhibit strong correlation to volumes (negative variance for 12 molecules in Odisha proves this hypothesis).

Conclusions

Based on our observations across the different states, we opine that adaptation of the TNMSC model should come with a detailed and objective analysis of the existing state conditions and its ability (monetary and administrative) to create new structures. The head of the procurement cell plays a crucial role in managing and running the system smoothly, which implies immense political support and authority. Adopting the model without the necessary prerequisites would result in a state spending more money without necessarily improving outcomes. This is not to say that the existing structures were functioning better, it is only a prompter towards doing and undoing several things in the current adoption to fit into the state contexts. Yet, it is important to remember that the TNMSC has given the states something to think about and an opportunity to experiment with their procurement models while it is too early to comment on the success of the evolved model.

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