Role of management tools in financing of health car delivery institutions.

Dr. Prasanta Mahapatra[1]

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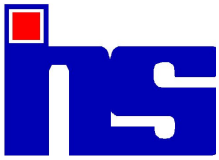

THE INSTITUTE OF HEALTH SYSTEMS

[1] President, The Institute of Health Systems, HACA Bhavan, Hyderabad 500 004 India

ROLE OF MANAGEMENT TOOLS IN FINANCING OF HEALTH CARE DELIVERY INSTITUTIONS

Dr. Prasanta Mahapatra[1], MBBS, IAS

Management, in the context of health care delivery institutions (HDI), is the art of organising and operating human and material resources around a set of objectives for smooth and efficient service delivery. By contributing towards increased efficiency, better quality of service, harmonious interaction of personnel etc. Every management tool would naturally be having some financial implications. However certain of these tools would have a more direct impact on the finance of any institution. The purpose of this paper is to identify some of them. An effort is also made to discuss the nature of impact each of the management tools can make, as well as it's own process. Management tools, in the context of financing of health care delivery institutions can be classified into two broad categories:

Management tools which contribute towards eligibility, credibility and operational autonomy of the HDI vis a vis the funding agency. For example:-

1. Development of Project Ideas and Preparation of Project proposal.
2. Project Management, Monitoring, and Evaluation Techniques.
3. Budgeting & Sub allocation of Resources.
4. Financial Planning
5. Tolerable Donor Privileges.

Management tools which contribute towards substantial economy in operation of the HDI irrespective of the source of funding.

1. Cost Effective Regimen & Appropriate Technology
2. Hospital Formulary
3. Standardisation & quality systems.
4. Streamlined Procurement System.
5. Costing & Accounting
6. Factorial Cost Reduction Process.

DEVELOPMENT OF PROJECT IDEAS & PREPARATION OF PROJECT PROPOSAL

The origin of any project idea would be a felt need by people. Project ideas can't be churned out by any management mill. The best project idea develops itself from out of epidemiological and socio economic situations. To this extent every HDI would naturally be having an understanding of it's basic goals and missions. What is normally lacking is the skill to articulate the felt need in a manner that can be understood and received by potential funding agencies. The process of development of Project idea also involves elaboration of the felt need(s), working out it's ramifications, and interaction of various needs and objectives among themselves etc. This process can reveal to the HDI, what is feasible and what would be difficult. It involves

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[1] Joint Secretary, Revenue (Relief) Dept., of AP Secreatariat, Hyderabad, India.

learning from experiences of other HIDs who might have tried similar ideas. A skilled project formulator would look for data and ask questions that would help in understanding the attributes of the felt need, it's quantitative implications as well as in working out the details of a mechanism to translate the idea into action. Without proper project formulation funds may not forthcoming, and if available, implementation may not be easy.

Talwar[2] has reported that survey of voluntary HDIs in Gujarat, Karnataka, Madhya Pradesh, Orissa and Uttar Pradesh by the NIHFW revealed that about 53 to 60% of the agencies felt that they require assistance in development of Programme ideas and preparation of proposal. The Survey found that "the proposals submitted for funding had several deficiencies. Neither was the service needs of people properly identified nor was the proposal well prepared. In most of the cases, the appraisal team had to greatly change and rewrite the proposal after discussion with the people and the organisation.

Thus there is need to improve the skill and expertise in HDIs for better project formulation. However individual HDIs would need to formulate projects at longer intervals, based on their needs. Most of their time would naturally be devoted to project implementation. So it would not be viable for them to maintain the full team of skilled manpower for project formulation, it's basic techniques and understanding of data requirements for this purpose. Whenever any project formulation is called for the HDI should collaborate with a professional organisation or team. One convenient alternative is to entrust this work to a consultancy organisation. But this has it's problems. The consultancy organisation would have all the skill but would not have the understanding of the field conditions in the project area. So necessarily it has to depend on the HDI for collection of data. In the end the HDI would do all the donkey work of data collection etc. But would not get the intellectual satisfaction of having formulated the project. Moreover all HDIs may not be able to afford the cost of consultancy services, particularly as the source of funding is identified only after the project report is submitted. The investment I project formulation is a risk. Instead it would be good to interact with an institution documenting literature on health project formulation as well as the actual projects taken up in different places. The institution should also be having some skilled manpower for project formulation. Managers from HDIs should be able to visit the institute, collect material, interact with the project experts and draw up their own project. The institute collect material, interact with the project experts and draw up their own project. The institute would help them in developing their own skills. At the stage of project report writing more intensive help from the institute may be needed.

PROJECT MANAGEMENT, MONITORING, AND EVALUATION TECHNIQUES

In a small organisation, managed by highly motivated people who have a vision and understanding of their goals and missions, implementation of any program in a small scale is not a problem. In fact the best way to achieve good results in such situation is not to have any predetermined system. But once the size of an organisation or the program increases with respect to the visionary and committed people the problem of project management becomes evident. The

[2] Talwar, Prem "Strategies for development of technical skills among voluntary organisations; some experiences" paper presented at the National Workshop on Health Finance, VHAI, 1990".

NIHFW survey cited earlier revealed that "most of the voluntary organisations had been working in a small way. They felt lost when large projects were undertaken. Most of the organisations did not have enough understanding and expertise in the management and implementation of Primary Health Care Projects. "About 50 to 60 percent of VOs surveyed required help either in program implementation, management or monitoring.

The skill for project management would consist of ability to prepare an activity plan, visualise human and material resources requirement, organise manpower selection and training and devising a system of feedback. A project manager will also have to be familiar with the skills of social survey for assessment of user perceptions about the reliability and quality of the service output. Relatively bigger projects may need the use of tools like the PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method).

BUDGETING & SUB ALLOCATION OF RESOURCES.

The efficient functioning of Medical and Health institutions will depend to a large extent on the quantum of funds available to them[3] an indication of efficiency of the institutions themselves. How the resources are utilised is relevant, indeed important. Health institutions in the public as well as the voluntary sector are essentially spending units. From this point of view, the efficiency of the institution can be judged from how best it is able to spend the resources. The pattern of resource allocation is suggestive of the values it cherishes and the policy goals the institution pursues. The manner of disposal of funds is important since it determines the well being of institutions. Allocation is not an isolated issue, it is linked with internal efficiency of the institution and its departments. Allocative efficiency is more important for voluntary agency and public hospitals in developing countries as the total resources available to these hospitals are usually limited.

Moreover Study of unit cost of various services, is a tool for planning, Since it throws light on aspects like:-

1. Allocative efficiency
2. Economies of scale

Cost analysis becomes instrumental for objective assessment of allocative efficiency and distributional efficiency of resources. The units of appropriation should be such that the unit cost of various health and hospital services rendered by the institution and its departments can ascertained.

Share of Human and Material Costs:

Expenditure by health institutions can be broadly divided into two categories:

1. Human Resources cost i.e. Salaries & Staff cost.
2. Material Resources cost i.e. Drugs, Therapeutics, Linen, Materials & Supplies, Equipment & Furniture etc.

Professional staff (i.e. Human Resources) constitute the mainstay of services in Medical and Health Sector. Complementary Material Resources are also important. Medical and Health

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Service tot he Public ultimately and mainly flows from the technical advice, and consultancy rendered by the Doctors, Nurses or Health Workers to patients or the population. Otherwise Medical and Health Institutions would deteriorate into Medicine supply points.

The relative share of allocations towards human and material costs is very important and will have to be carefully balanced, so that the two components are complementary to each other. Important factors that should affect the relative share of the two costs are, the Public Policy towards health as a service; goals and missions of the health institutions; composition of the clientele; as well as the opportunity cost of human resources and material resources in a Country. What should be the optimum ratio of human cost to material costs in a public hospital in the developing countries? There is need to institute specific studies in different types of institutions to compare the share of human and material costs and its correlation with the quantity, quality as well as composition of health services rendered by those institutions. Only then it will be possible to arrive at a correct ration of human and material costs appropriate to the goals and missions of each type of health institution. Various health indicators of the country as well as the institutions will have to be studied to see if there is any correlation between the allocation pattern, for human and material resources and the quality of health care delivery system. However based on available data a norm of 66.6 : 33.3 between salary and Non Salary expenses can be considered appropriate for hospitals.

In case of human resources what is important is the type of personnel for which the major part of health budget is spent. Is it being spent for Medical and paramedical personnel or is it that a substantial part is going toward non technical personnel? It would be advisable to classify the human resources allocations and expenditure into certain functionally related groups like the following heads.

1. Medical personnel i.e. Specialists Doctors, Dentists etc.
2. Nursing & Paramedical personnel i.e. Those possessing technical qualifications and skill related to the practice of medical profession e.g. Nurses, Pharmacists, Lab Technicians etc.
3. Subordinate Nursing & Paramedical personnel engaged in supportive roles to Nursing & Paramedical personnel e.g. Lab attendants, Theatre Assts., Nursing Orderlies.
4. General support personnel i.e. Those providing Building maintenance sanitation wok and administrative, accounting clerical support etc.

There can be different alternatives to the above classifications. Every HDI should be able to evolve the most appropriate classification for itself.

An essential step to achieve optimum allocation for various material resources is to agree on a set of objectives on Material resources. The following objectives would be considered as appropriate for operational and analytical purposes.

1. To direct the available funds to secure material resources required for achievement of State policy on Medical and Health Services, Organisational and Institutional goals.
2. To achieve complementarity between the normative human resources and availability of material resources.
3. To achieve optimum utilisation of available capital resources, i.e. machinery and equipment.

4. To achieve consistency in availability of materials, provide scope for local initiative and efficient materials management.

FINANCIAL PLANNING

"Estimating financial needs and thinking about financing goals are essential steps in developing program financing[4] are usually thought of simply in terms of current levels of spending - for example, last year's budget increased by a certain amount for inflation. Last year's budget may not always be the best guide to next year's or future year's, spending. Is the program expanding so that more staff will be needed / Is the frequency of use of services by the community increasing, so that the need for supplies may increase? Are there items of equipment or vehicles that will need to be replaced? A projection into the future of financial requirements-- a financial plan -- should be part of each organisation's overall planning. This should be done in terms of specific types of expenditures such as equipment, vehicles, salaries, supplies etc. It would also be useful to do it in terms of specific program activities, for example, outpatient clinic, community nutrition program etc. These projections should include plans for future program development, such as expansion. It might also be helpful to develop alternative plans which could be used depending on the availability of different levels of funding.

Setting financing goals should begin with a review of the different sources of funding available to each organisation and some thought about new sources of financing that might be developed. This needs to be done for current and future years. Again, alternatives might be considered depending on the probable success of funding efforts - for example, what is the likelihood that a current government or donor grant will be renewed in full, in part, or even supplemented two years from now when it expires? What is the likely revenue from an income generating activity? Comparing these estimates with financial needs should help organisations to set feasible goals for different sources of financing."

TOLERABLE DONOR PRIVILEGES

The share of philanthropy charities and donations has been gradually decreasing as a source of fund for HDIs. This has been generally replaced by the general taxation as source of funding. However philanthropy do contribute a small part of the resources. It has the potential of yielding, though small, additional resources for HDIs. The donor would naturally expect some privileges. The story of philanthropy is replete with instances of improperly used donor privileges being responsible for deterioration in standards of many institutions. Donor privilege is also a source of interference. Hence it is desirable to document and identify the donor privileges which are innocuous in nature and would not affect the functioning of the institutions. Only then an institution can feel secure to accept donations without the threat of loosing out on it's basic mission.

COST EFFECTIVE REGIMEN & APPROPRIATE TECHNOLOGY

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[4] Peter Berman, "A toolbox for financing" Health for the Millions, June 1990

Most of the technological advancement in the medical profession, calls upon additional expenditure to make it available to people, along with what existed earlier. Technological advances keep on adding to existing diagnostic and therapeutic opportunities and hence have a tendency to increase the cost of medical care. Drugs and therapeutics are being manufactured in various formulations. In many cases the cost of alternative formulations, having same biological and therapeutic response, vary greatly. This is on account of the status of the manufacturers, their packaging and advertising policy promotional efforts etc. Moreover practice of medical profession is a highly personaslised affair, where the clinicians are prone to differ in their prescription habits.

It is by now well known that in the developed countries a good part of the medical and health expenditure is wasteful. The Scottish Committee[5] on Prescribing Costs, 1959, reported that there is waste in prescribing by both family doctors and hospital doctors.

The Hinchliffe Report[6], 1959 observed that there is scope for economy in prescribing. The report observed that the drug bill of NHS rose by 45% as real value basis, between 1949-050 to 1957-58. The average cost per prescription as well as per patient in NHS doubled during this period.

Though measures to improve awareness of doctors regarding economy in prescribing, cost effective regimens are essential and likely to reduce costs, the real benefit is likely to come from a scheme of restricting the latitude of prescribing by doctors in some form or other. New Zealand, Australia and Denmark were reported to be practicing such measures in their State services. Hence, the need for operation of hospital formularies and public health formularies, which have been discussed elsewhere.

Such proposals have been resisted in U.K. On the ground that though a limited list of drugs would not really be dangerous, many would regard it as the thin end of the wedge of bureaucratic interference. The Scottish Committee on Prescribing Cost, 1959 opined that the unease which might be felt by the profession in the face of any such limitation will be too high a price to pay for the marginal financial savings, which might be gained. But the situation in a developing economy is different. Significant rise in cost of rendering health care is too high a price being paid for unlimited freedom to the prescribing habits of professionals. At the same time these apprehensions ought to be important considerations in development of a mechanism for preparation of the approved drug lists. These should be prepared after widest possible consultation among the professionals and should have a mechanism of regular updating.

In summary the following factors lead to increased cost of medical treatment.

1. Expansion of diagnostic and therapeutic opportunities due to technological advancement.
2. Widely varying cost of alternative formulations due to corporate status and policy of the manufacturers.
3. Widely differing prescription habits of members of medical profession.

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[5] Scottish Committee on prescribing costs, report summary; The Hospitals and Health Services year blood 1989, Institute of Health Services Management, London.

[6] The committee on cost of prescribing, final report; The Hospitals and Health Services year book 1989, Institute of Health Services Management, London.

4. The General Tendency to prepare drugs & therapeutic products with costlier packaging for convenience of presentation.

It is very difficult for any HDI to keep pace with expanding opportunity to spend on nonessential materials with imaginary advantages or dispensable conveniences. As a result budgetary provision for material and supplies do not keep pace with the changes due to; expanding therapeutic and diagnostic opportunities, the wide range of formulations, personalised prescription habits of physicians and the clamour for conveniently packed and appealing presentations of drugs and therapeutics. This is particularly so because, in most or on nominal fees.

No Conscious effort seems to have been made to promote the concept of cost effective regimen in medical care. On the other hand it is possible to achieve cost effectiveness on account of the following.

1. There are alternative preparations of the same drug or therapeutics, with widely varying cost, per unit of active principle.
2. There are alternative drugs and therapeutics capable of producing the same biological and therapeutic response.
3. Accurate diagnosis can lead to overall reduction in requirement of drugs and therapeutics.

For example the same drug costs more in a syrup preparation than in a tablet. Unless syrup is essential, as in case of small children, it should be avoided. Iron is simultaneously available in very cheap but highly effective preparation like ferrous sulfate and in costly preparations like the ferrous fumarate, gluconate etc. Physicians working in HDIs can also contribute to it's cost effectiveness by avoiding avoidable diagnostic tests. Mature clinical reasoning, developing alternate hypotheses early in the analysis of the patient problem and working on them to arrive at the appropriate one can lead to a correct diagnosis with less number of diagnostic tests.

Apart from drugs there can be scope for cost reduction by alternate clinical practices. Detailed Clinical examination can save the need for certain laboratory investigations. Close monitoring of clinical parameters can help in avoiding certain drugs.

The principle of cost of effective regimen lays down that between alternative regimens capable of producing similar and equally effective biological and therapeutic responses, the regimen that costs less than others shall be preferred.

The following operational steps could be considered for promotion of cost effective regimen.

1. Adoption of an appropriate hospital formulary and public health formulary by the HDIs.
2. A general order or policy statement should be issued by the organisation managing the HDI(s) concerned stating their policy regarding adoption of cost effective regimen and requiring the professionals there in to practice the same.
3. Wherever National and International bodies like the National Institutes, ICMR, WHO, UNICEF etc., have recommended adoption of particular regimen, such regimens should be preferred by the Professionals working in public and voluntary HDIs unless there is any overriding reason in the circumstances of a particular case.

4. Projects involving study of cost effectiveness of alternative regimens should be encouraged and given priority in funding.
5. Regular workshops, seminars and symposia should be conducted for the medical professionals in HDIs regarding the principles of cost effective regimen and to expose them to specific areas for adoption of cost effective regimen.

Apart from the drugs there are many other components of a medical or health care regimen. For e.g. Presterilised dressing material is a case for consideration. They are convenient but very costly. Dressing material sterilised by the health institution itself are very cheap and equally effective. Disposable needles are a must, but disposable syringes could perhaps be avoided. Timely reservation of adequate land in small towns and potential central places, can avoid the need for high rise buildings, which ultimately call for a higher maintenance expenditure or lead to lesser reliability of support services. In other wards adoption of appropriate technologies by HDIs can also lead to a lot of cost containment. Institutional mechanisms to tap the surplus manpower that is commonly associated with any patient in developing countries can lead to savings in HDI staff costs. The relatives and attendants who so naturally gather around a person who is ill are now being perceived as a nuisance. Certainly they are a nuisance without appropriate mechanism to give them a role in institutionalised care of their patient. But if an institution were to look to them as available manpower and could evolve mechanism of channeling their energies, we can save in staff costs. Thus appropriate technology in the context of HDI does not only mean the technological content of physical appliances, if means a complete redrawing of the human, material and professional processes as well.

HOSPITAL FORMULARY:

Drugs and therapeutics are being manufactured in various formulations. In many cases the cost of alternative formulations, having same biological and therapeutic response, vary greatly. This is on account of the status of the manufacturers, their packaging and advertising policy promotional efforts etc. The principle of cost effective regimen lays down that between alternative regimens capable of producing similar and equally effective biological and therapeutic responses the regimen that costs less than others shall be preferred.

The concept of rational drug use is also relevant to the situation, while cost effectiveness is one of its components there are other important professional considerations for which the concept of rational drug use stands for. Scientific rationale should form the basis of any drug prescription. An approved list of drugs is a mechanism by which an institution can ensure that its limited resources are not frittered away on drugs and therapeutics which don't have proven scientific basis for their use or are known to be undesirable.

The notion that the number of necessary drugs is relatively small is supported by experience. WHO[7] has reported that several developing countries that have adopted limited drugs lists report good acceptance, as well as favourable medical and economic results. Lists and formularies with a limited number of drugs are also successfully used in many developed countries. A limited list may not provide for the needs of every person but certainly should meet those of the vast majority.

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[7] Use of essential drugs, WHO TRS 722, 1985.

The hospital formulary is also a means of matching the procurement and stock holding policy of a hospital to the morbidity pattern of the society in which it exists. There by the formulary can ensure that every paise that is available for drugs and therapeutics is well spent to tackle the major morbidity of the area instead of serving the needs of a few but influential persons.

STANDARDISATION & QUALITY SYSTEMS:

HDIs consume a large variety of materials and supplies. The first step in processing them is to compare various offers and arrive at the most useful one. In case of drugs and therapeutics the hospital formulary or the public health formulary can cover this aspect. Hence the discussions under this head would focus on the non drug items.

The Bureau of Indian Standards have developed about 827[8] standards in the medical sector. Standards are already available for a large number of Dental instruments & equipment, Surgical instruments, orthopedics instruments and accessories. Fairly good number of standards are available in hospital equipment, furniture etc. Recently the APVVP has developed twelve standard specifications for hospital mattresses[9].

HDIs should select and adopt the available standard specific actions while purchasing materials and supplies required by them. Adoption of standard specification may in certain circumstances lead to certain increase in expenditure initially. But this will be more than offset by the serviceability and life time of the standard materials. Adoption of standard specifications will lead to long term economy in operation of services.

There is need to increase the awareness on the part of the HDIs towards the available standards, their contents and their utility. This can be achieved by seminars, workshops and training courses, both stationery and roving.

There is also need to develop simple and practicable acceptance tests and standards for each of the available standards, to be adopted by the HDIs while accepting the stock. The APVVP standard for hospital mattresses has made an effort in this direction. The stores personnel, Supervisory nursing personnel as well as Purchase department personnel of HDIs will have to be trained in application of these acceptance tests.

Simultaneously efforts must be made to develop standard specification for materials and supplies which are commonly required by HDIs but are not available now. Efforts made by APVVP to develop standards for hospital mattresses is an example. As the work of drawing up of standard specification involves multi-disciplinary input consisting of standards engineers, manufacturers, consumers, it may not be possible for individual HDIs to take up this activity. This activity can be viably taken up by a common agency who could interact with the HDIs and work according to their needs.

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[8] Bureau of Indian Standards, Consumer products and medical instruments, 1988, New Delhi.

[9] Standard specification of mattresses for hospitals, AP Vaidya Vidhana Parishad, Hyderabad, 1990.

STREAMLINED PROCUREMENT SYSTEM.

Effective materials and supplies management is essential to achieve economy in expenditure for unit of service rendered both in qualitative and quantitative terms. Materials and suppliers cost, unlike the staff cost, is more variable. Inadequate attention to these can lead to rapid deterioration in service or sudden increase in cost of operating the service. Apart from measures like adoption of standard specifications and inventory control a streamlined procurement system is an important step in the area of materials management. Various Procurement systems can be thought of:

1. Central Purchase & Supply
2. Rate contract or Joint contracting.
3. Direct Purchase.

Each of the procurement system mentioned above has it's strength and weaknesses. It won't be proper to ask which of them will be most ideal but how much of each of them would be appropriate in the circumstances of a case. A pragmatic procurement system would consist of a combination of all appropriately applied to the materials required. Active operation of all the systems can also help compensate any difficulty arising in any one of the purchase arrangements at any time. For e.g. The British Committee on Hospital supplies, 1958, opined that central purchase could be made for medical and surgical appliances and joint contracting could be useful for drugs, dressings, common user or domestic appliances, etc. They further opined that direct purchase of perishables and food stuff would be ideal. The Hunt report[10] noted that in 1964-65 10% of the NHS materials & supplies expenditure were by way of central purchases. Joint contracting accounted for about 23% of supplies and almost two thirds of purchasing is directly done at the institutional level. These figures are quoted here only to give an idea about the relative share of various procurement methods in case of NHS. There is need to make similar studies in India.

The central purchase and supply system consist of assessing the requirement, appreciation of supplier offers, ordering and payment by a central agency. While the Central Purchase & Supply arrangement can secure to the HDI, advantages out of bulk buying and specialized supplies of personnel, it's greatest disadvantages is it's distance from the HDI themselves. The HDI themselves. The HDI hardly has any say on the important issues like interse allocation of resources among various materials, it's quantity and schedule of supply etc. Feedback on quality of supply is slow to travel up to the Central supply organization. Moreover, in case of voluntary HDIs, there will be the additional problem of inter organizational accountability.

In the rate contract or joint contract system, a central organization or a body jointly set up by various organizations draws up contract with suppliers covering areas like product specification, rates, supply schedules and other terms of business. As the rate or price is the most significant aspect of the standard contract, it is commonly referred to as rate contract. The rate contract is communicated to all HDIs, who place orders on the suppliers directly. Both the HDI and the supplier follow the terms of the rate contract. Here the HDI has full discretion regarding

[10] Committee on hospital supplies, final report 1958, summary; The Hospitals and Health Services year book 1989, Institute of Health Services Management, London,.

deployment of it's resources. Though user feedback may take some time to travel up to the rate contract authority, there is a direct business relationship between the HDI and the supplier. This is by way of things like prompt payment, repeat order etc. By the HDI to the supplier.

The Central Drug Marketing Unit (CDMU)[11] set up I 1984 by the West Bengal Voluntary Health Association is a case of a modified joint contracting and central purchase. The CDMU has organised a system of pooled bulk procurement and distribution of life saving drugs. About 30% saving in the drugs and therapeutic bill, has reportedly been achieved by this. The CDMU enlists suppliers, appraises their tenders, approves terms of trade, and stocks the drugs for dispatch to participating agencies.

The rate contract system has been in vogue in the governmental sector since long. Though it has given certain results there are also areas of frustrations regarding poor quality and reliability of supplies under the rate contract system. Thus the potential of the rate contract system can be tapped only if the pitfalls normally associated with it's operation are consciously avoided.

While centralised drawing up of terms of business by a specialised agency can improve the reliability of the supplies, it cannot by itself secure any great reduction in the price paid. The big price advantage flows from the hope of bulk sale by the suppliers. For this the rate contract system has to have a mechanism of assuring the suppliers about the minimum anticipated business. Otherwise the suppliers will either quote higher rates or indulge in unethical trade practices, after having quoted low rates. Similarly the supplier obligations under the rate contract should be within predetermined and reasonable limits. For example when the HDIs are very much dispersed the cost of supply to HDIs with good locational advantages and those remotely located would vary significantly due to the transport factor. The rate contract firms would naturally try to either avoid the remotely located HDI or quote very high rates to cover the risk in having to supply to them.

A study[12] of the surgical rate contract system in Andhra Pradesh revealed that a large number of items had been included in the rate contract. In many cases the actual purchases made for some of the rate Contracted items were either nil or very insignificant. Data on actual purchase of Hospital equipment and surgical instruments in all teaching institutions of the state was collected for a period of 5 years. Analysis of this data revealed that 36% of the total no. Of items in the rate Contract were never purchased.

It has been seen that non-execution of orders by the rate contract firms is one of the important problems faced by the direct demanding officers. One of the reasons of non-execution by rate contract firms is that the quantity for which order is placed on them may not be economical enough for them to deliver it to the direct demanding officer. As a result they try to avoid. Another reason is obsolescence of the rate contract. Rate contracts are drawn up to remain valid for 2 to 3 years. The very process of preparing a large rate contract takes about six months. Some

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[11] Poddar, D.P, "Financing of Health Projects, WBVHA CDMU Experience" - Paper presented of the National Workshop on Health Finance, May 1-4, 1990, Simla, VHAI & Ford Foundation.

[12] Govt. Of Andhra Pradesh, Medical & Health Material Resources Policy, Report of the Committee on Purchase Policy 1988-89 Vol.I.

times due to politico bureaucratic constraints fresh rate contracts are not drawn up in time. So the rates become obsolescent.

The rate contract system will naturally have to have hierarchy within itself, based on the criteria of minimum anticipated order and the spread of HDIs. Materials and supplies which are required in bulk, or are fast moving and consume a good part of the financial resources can be covered by higher level say general rate contracts. There can be local rate contracts for certain products.

The Hunt report identified the following main difficulties in expansion of Joint contracting system:-

1. Widespread reluctance on the part of hospital groups to accept common specifications;
2. Some hospital authorities see no financial advantage for themselves;
3. Lack of specialist supply staff in some regions; and
4. Some authorities have insufficient storage space to take deliveries in economic quantities.

The first reason can't be valid in India, as it is mostly a problem of lack of any specification here. In fact at a later date the British health department supply board working group[13], 1978 observed that the wide variety of specifications used by different health authorities for similar items, hindered progress in coordination of purchasing. It is possible that HDIs located in metropolis and important trade centers would not get any price advantage for their supplies through the rate contract, the later is drawn up by keeping in mind institutions spread over a larger area. The third observation of the Hunt report implies that the degree of adoption of joint contracting system also depends on the professional manner in which it is draw up and the accessibility of the rate contract organisation to the HDIs. Availability of storage facility in HDIs is an important factor in the Indian context.

Thus the most important prerequisites for success of the rate contract system are:-

1. Assuring the suppliers of a minimum anticipated order on each of the items covered by the rate Contract.
2. Appropriately defining the terms of trade and suppliers obligations, within reasonable limits suitable to both sides.

There is need for national and regional organisations to draw up rate contracts periodically, to maintain historical data on suppliers, to process and analyse feedback from HDIs etc.

Direct purchase means procurement made at the institution level. The institution has full freedom in specifying the product, allocating resources for various materials and a quick feed back on the quality of supplies. This is the default mode of purchase for the HDI.

Whatever may be the procurement system, it is important to apply an effective system of appraisal of potential suppliers. Otherwise many who are either not serious or would resort to

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[13] The supply board working group, report 1978, summary; The Hospitals and Health Services year book 1989, Institute of Health Services Management, London.

unethical trade practices are likely tog et in. This ultimately affects the reliability, quality as well as the cost of supplies. Experience in APVVP has shown a system of Dual Bids consisting of the Technical Bid and Financial Bid can give fairly good results.

COSTING & ACCOUNTING

"Costing is a simple, important, and insufficiently used tool to help in developing program financing[14] organisation of a program or a service is the financial value of all resources used to provide it. In many cases, costing an activity simply requires adding up the expenditures on things used to carry out that activity, such as salaries, supplies etc. Certain items of cost need to be handled a bit differently. For example, the purchase cost of a vehicle or item of equipment is incurred at one time, but the use of such items extends into future. Also some inputs are used for more than one type of activity, such as when a project physician works part time in the hospital and part time in community outreach services. In such cases simple methods can be used to adjust costs appropriately."

Some of the useful applications of cost data are; they provide an indication of the resource requirements for program continuation or expansion in future, they can help monitor the relative efficiencies of different facilities, they can also provide a bench mark for setting fee levels and help monitor cost recovery levels.

FACTORIAL COST REDUCTION PROCESS

Every delivered unit of health care is a product of multiple inputs consisting of human resources and material resources. The cost of various factors contributing towards delivery of a service would naturally affect the cost of the service. Similarly the degree and pattern of demand made by an unit of delivered service on various factors could also affect the cost. Each HDI develops it's own way of dealing with various situations. Each institution may have it's own way of organisisng the same service. Sometimes the problems and circumstances faced by an institution unconsciously lead it to adopt a particular way of organisisng the factorial inputs for service delivery. The factorial cost analysis of comparable units of service rendered by different HDIs will throw light on discrepancies in cost of each input factor. By combining the lowest cost performance for all factors a best demonstrable cost can be arrived at. Then each institution can analyse it's own performance against the best demonstrable cost. The institution then could try to recorganise those factors where it's own cost is much higher than that constituting the best demonstrable cost. The functional heads of allocation of resources can help in such studies. To start with these functional heads of resource allocation can be viewed the broad factors of the services delivered. Similar techniques are reported to have been applied by the Baxter Health Care Corporation, USA, for cost reduction in about 150 USA and Canadian hospitals.

This technique will be particularly useful for organisations operating many health care delivery institutions. In case of single Project organisations also, the study can be made by a common agency and results disseminated to all.

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[14] Peter Berman, "A toolbox for financing" Health for the Millions, June 1990.