



ADMINISTRATOR'S SECTION - MAGAZINE

WAKE-UP CALL

QUARTERLY ISSUE - 5

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Madhya Pradesh. At a Glance**

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Message from the Editorial Team

Dear Members,

Greetings in the Precious Name of our Lord and Saviour Jesus Christ.

We are pleased to release the **fifth** issue of the "Wake Up Call "E-News Letter from the Administrators Section of CMAI. We have stepped into the New Year with new challenges. We look back with Gratitude for the Courage and Faith that we held on to in 2020. The pandemic brought on new roles and responsibilities. With the hope that the situation will return to normalcy, we enter the New Year with Abundant Hope, Enthusiasm, and Commitment. **The pandemic has taught us to see the other side of life and has prepared us to be more resilient**

Let us thank Him always for all things that he has done for our institutions through each of you. May the Lord repay your work and fully reward you with more Wisdom to move ahead.

Please feel free to communicate with us your feedback on any section of the News Letter. We are happy to meet the needs of our beloved readers. Please contact 9741336277 or write to ejohn@cmai.org. Happy reading.

Praying for you all.

Editorial Team

BURDENS LIFTED, HOPE RESTORED PADHAR HOSPITAL, A MEDICAL OASIS IN THE INDIAN HEARTLAND

Padhar Hospital came out of a divine calling. Blink, and you will miss us! A small mission hospital in an obscure village in the middle of nowhere. Along National Highway 47, between Nagpur in the south and Bhopal in the north!

Swedish missionaries first came to the Central Provinces of India, in what is now known as Madhya Pradesh, in the late 1890s. The early missionaries started medical work and social upliftment programs amongst the local tribals. They were headquartered at Chhindwara with large mission posts at Betul and Shahpur. Neempani station, as Padhar used to be called in those early days, was just a small hutment.

The village of Padhar does not feature on any maps of India (not even now!) and the very name "Padhar" does not seem to fit in with those of the surroundings Gond villages! The story goes that in the late 1800s, a Swedish missionary passing through the dense, tiger-filled teak jungles of Betul, was forced to spend a night at a small tribal village en route. Later that night, he was called to help the village chieftain's son, who was critically ill with a high fever. The missionary offered them some medicines, presumably an anti-malarial. As dawn broke, so did the child's fever, and the grateful chieftain donated land to the missionary, entreating him to stay on. The village where the missionary or "Padre" (priest in Swedish) stayed, eventually became known as Padhar.

Returning to Padhar in 1958, he took charge of what was a small dispensary, working out of a tent under a big banyan tree. He worked tirelessly, and the patients came in droves! Dr.

Moss was Jack of all trades and master of many too! A competent doctor, he was equally comfortable tinkering under the hood of a car, or repairing a beat-up old x-ray machine that he had found lying in another hospital, or

constructing staff quarters and wards! Dr. Moss started a water development program, installing handpumps to ensure easy availability of safe drinking water, reducing water-borne diseases. He was a multi-linguist with a knack for learning new languages. The tribals were stunned when he spoke to them in Gondi; as did those from across the border when he spoke to them in chaste Marathi. And yet, in the midst of it all, he found time to preach the Good News of His Master. Before his death from prostatic carcinoma in 1997, he had even managed to help translate the Gospel into Gondi. In 1973, he has conferred the Order of the British Empire for his contribution to India.



Clement F. Moss, a young British missionary, who had not even finished school, was working as an evangelist amongst the Gond and Korku tribes in Betul district. A cholera epidemic that claimed many lives in the district was his "call". Though he learned how to rig up IV fluids to treat the masses that fell prey to the bacteria, it quickly made him realize his inadequacies and the immense need for proper medical care for this tribal population.

His first task was to finish his schooling at an Indian college. In 1952 he was selected for medical undergraduate studies at Christian Medical College, Ludhiana, a member of the first batch of male students to enroll there! He moved to Ludhiana with his Swedish wife Ingegerd and four little daughters....Now *that's* dedication and drive!

Dr. Vincent Solomon, an orthopedic surgeon, took over in 1986 when Dr. Padhar Hospital has been blessed with God-fearing, progressive, visionary directors. In 1969, Dr. Moss recruited Dr. A. Victor Choudhrie had just returned after surgical training in the UK. The need for a bigger hospital was soon evident and in 1970 a new 140-bedded hospital was constructed just across the road. The two doctors made a good team and the Golden Era of Padhar Hospital ensued. Padhar became a citadel for surgical care...a reputation it still enjoys! Surgical procedures that had never been undertaken before outside of the major cities, including cardiac surgery, clefts, hip arthroplasty, treatment of cancers, and more, we're now available at Padhar. The first cobalt teletherapy unit in rural southeast Asia was installed in Padhar in 1982! He was also extremely "Community-oriented".

By using simple methods, the introduction of tilapia fish into the nearby water bodies, and the planting of papaya trees, he was able to drastically reduce protein-energy malnutrition and vitamin deficiencies in the district. This earned him the nickname "Papaya Choudhrie"... and the Paul Harrison Award for Community service from his Alma mater, CMC Vellore.

And that's how the story of Padhar Hospital, a unit of the Evangelical Lutheran Church in Madhya Pradesh, began. A tent spread beneath a big banyan tree; surgeries by torchlight; reaching out to those poor in body, mind, and soul; spreading the Good News in the name of Jesus.



Ludhiana. Orthopedic work at Padhar flourished during this time and the first Total Hip replacement in Madhya Pradesh was done by him here in 1982.

Dr. Solomon expanded the hospital, bringing in new specialties and technologies to keep pace with modern medicine. A new orthopedic theatre, Intensive Care Unit, Dialysis Centre, and Pain and Palliative Care Centre came into being. He is also credited with building manpower through various paramedical courses.

Dr. Rajiv Choudhrie took over from Dr. Solomon in 2008. A plastic surgeon with a passion for head and neck surgery, Dr. Rajiv continues to keep Padhar the “go-to” place for surgical care, doing a wide range of complex surgeries along with his team of doctors. Padhar also has more than 5500 cleft lip and palate surgeries to its credit.



Stuti and Aradhana were a set of conjoined twins who were born here in 2011 and abandoned at the hospital. The girls were adopted by the Hospital and were loved not only by our staff and students but the entire Padhar community including patients and relatives.



In 2012, Padhar grabbed national and international attention when we surgically separated them...the first successful conjoint twin separation surgery in a rural Indian setup. However, we were devastated when Aradhana passed away 2 weeks after surgery. Stuti, who stayed on for another year before going home to her parents, visits often,

a tangible witness to the Miracle-maker God we serve.

And somewhere along the way, the single-doctor dispensary grew to become a 200-bedded multispecialty hospital. Its departments are now manned by well-trained, young Christian specialists. The various departments include General Medicine (Dialysis, Pain and Palliation, Diabetology), Obstetrics and Gynaecology, Paediatrics (Neonatal ICU, Nutritional Rehabilitation Centre), Surgery (General Surgery, Plastic and Microvascular Surgery, Maxillofacial Surgery, Urology, Laparoscopy, Cancer, Orthopaedics, Ophthalmology, ENT), Radiation Therapy (Cobalt Teletherapy, Brachytherapy, and Chemotherapy), Dental, Community Medicine (Alcohol and Drug Deaddiction Centre, Community Psychiatry), Pathology (Histopath and blood bank), Microbiology and Radiology (computed radiography, Ultrasound, Colour Doppler, Echo, CT scan), Physiotherapy, Artificial Limb Making and an optical workshop. The Community Initiatives Department is concerned with all our outreach work, including maternal and child health, First 1000 days of Life Project, cervical and oral cancer screening, and self-help groups.

In addition to medical care, the hospital has helped meet the educational needs of the community, spreading awareness and bringing in social change, upliftment, and women’s empowerment.

In 2011, we started a School of Nursing, now a College, providing GNM Diploma and BSc Degree courses in Nursing. We also conduct various Allied Health courses in collaboration with the CMAI;

Radiation Technology, Anaesthesia Technology, and Medical Records Technology.

These programs were initiated predominantly for our local tribal population, to empower them so they can bring about radical changes in their socioeconomic and health status, promote leadership, help maintain the self-esteem and pride of tribals and improve local governance.



The students have certainly improved the flavor of Padhar! Join us for morning prayers in Hospital or the Sunday English Service at Church and see our talented students in action! Their prowess on the keyboards, percussion, and string instruments gives a real lift to the singing...their enthusiasm and vigor brimming over to encompass each member of the congregation.

Happy Valley English Medium School was started as a primary school by Padhar Hospital in 1984 and is the only English medium high school in a 20km radius. Most of the children come from the surrounding villages and belong to Scheduled Castes, Tribes, and Other Backward Classes. In 2015, the school was upgraded to grade 12, recognized by the MP State Board of Education.

Every picture tells a story, and the plaque hanging in our outpatient waiting hall tells ours. The story of a listening ear...a trusting heart...an obedient spirit, heeding God's call to go and bring forth lasting fruit. John 15:16 says "You did not choose me, but I have chosen you and appointed you that you might go and bring forth fruit that will remain..". And we at Padhar believe we are here for a reason, a divine calling, serving Him through our work, extending His Kingdom on earth...for an eternity in His Presence!

No fanfare. No airs. But yes, we're proud of our heritage and calling!

The wheels of Time move on and even now, 60 years later, Padhar Hospital continues its mission: to work for "THE GLORY OF GOD AND IN THE SERVICE OF MANKIND", lifting burdens and restoring hope.



Dr. Deepa Choudhrie
Radiologist
Padhar Hospital
Working here since 1989

BUDGET – A MANAGEMENT TOOL FOR EFFICIENT FINANCIAL AND COST CONTROL



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1. Introduction

Improved financial performance is one of the major objectives of Modern Hospital Management. Financial performance means better financial health that is the ability to meet all the present and future obligations, achieve an adequate return on investment along with higher value to patients, ability to create optimal debt when it is needed, and decrease the debt with the pre-planned schedule. As we know, individual health depends on the ability to organize, monitor, and take adequate care of physical and mental activities. Similarly, Organizational financial health can be maintained by organizing, monitor and control the various activities. Here the hospital has to pay serious attention to the three **Ps** of business, people, product, and process. These three Ps can be effectively controlled by adopting several available managerial tools to achieve financial health. The budget is future-oriented and providing an opportunity for the organization to carry its financial activities in an organized way and with defined costs and achieve the expected revenue. By managing the cost and revenue, the Organizational shall able to get better profit. Budget is an integral part of management that seeks to regulate the flow of its funds to the desired ends, since despite a good

financial plan, the desired results may not be forthcoming if there is no effective control to ensure its implementation. The budget thus acts as a set of yardsticks or guidelines for use in controlling the internal operations of the hospital or a health care department or level of utilization of the hospital or health care set up. A further budget guides the hospital management whether it is small or big (irrespective of the size of the hospital) to identify the gaps between the desired results with actual results and allow the management to necessary steps to solve such discrepancies.

2. WHAT IS A BUDGET

Budgeting is related to the process of defining the allocation of resources to produce the best outputs given the level of revenues, which includes inputs from a wide range of health sector stakeholders. The profit-oriented hospitals have a wide connotation and they generally equate budget with prompt planning in such organization. Here, the administrators have clarity over the budget activity or exercise along with financial managers. They incorporate income and expenses forecast along with measurable value and other indicators. In the public sector or government-owned hospitals or charitable hospitals, the primary purpose of the budget is to secure finances or

grants from appropriate competent authorities. It is also used as an authorization to incur expenditure on specified items or activities up to the amounts as indicated against each of them. Hence the meaning and purpose of budget different for types of organizations.

A budget is a statement that consists of the expenses and income which need to be implemented for a specific period, usually one year. It is a financial and /or quantitative statement, prepared and approved before implementation. The primary focus of the budget is to attaining the objectives of the organization.

2.1 Main Characteristics of a Budget

A budget supposes to the following main characteristics. Ideally, it is very important to ensure these characteristics are incorporated in every budget prepared at all levels and all kinds of organizations.

1. The budget is prepared well in advance (forecast) with quantitative terms with all key values and KPI and approved by the competent authority.
2. It is specifying the items on both sides such as income and expenses. It must express the intention behind every item of income and expenses. For example, about all income sources such as OPD, IPD, Surgical, Medical Services, Physical medicine and rehabilitation, pharmacy, diagnostic and other services in terms of numbers, unit rate, and total revenue. Similarly, the expenses items like material costs, labor costs, and other costs. Further, the expenses must be classified such as direct costs and indirect costs and also variable costs and fixed costs.
3. The budget must clarify the key strategies to achieve the desired level of income which is indicated in the budget.
4. The budget has to provide an idea to achieve Cost containment, Cost awareness, Cost monitoring, Cost reduction, Cost avoidance, Cost management, Cost control, Cost analysis
5. While specifying the units of income or expenses (operational units), it is important to highlight the income component the Number of OPD, OPD revenue per visit, and total revenue of OPD for the year. Similarly, the expenses component number of

consumables or number of utilities, the unit cost of consumables, and total cost of the consumables for the year.

6. It is important to have provisions for preparing different types of budgets such as static budget which is prepared by the organization before implementation, actual budget- it is the results of implementation and flexible budget is the multiplication of the unit rate of static budget and volume of actual budgets. This arrangement shall facilitate the hospital management to compare the budget performance. Further, this also helps the organization to improve the operation and financial performance.

2.2 Benefits of Budget

A well planned and appropriately implemented budget shall help us in the following ways:

- Promoting the efficiency and improvements in the working of the health care organizations.
- communicating the plans and exact responsibilities for incurring expenditures or generating revenue are assigned to various units. It fixes up the responsibility and avoiding buck-passing to others.
- motivating various heads of health care organizations to achieve the goals
- serves as a benchmark for controlling ongoing operations.
- developing team spirit among the key participants who are responsible for implementing the budget.
- reducing wastages and losses by revealing them in time for corrective actions.
- serves as a tool for measuring the efficiency and performance of key stakeholders

2.3 Various types of Budget

There is no clear-cut classification of budgets. Usually, the purpose of the budget would define the types of budget. However, in general, it can be classified in different categories based on time, function, or flexibility:

a. Time-Based Budgets

This kind of budget is decided to keep given the duration or period as a basis. The long duration of the budget has a financial estimation of three to five years or more longer. The short-term budgets one year, this can be called an annual budget. The other types of budget are called the Rolling budget is also known as a progressive budget. This budget is prepared well in advance. For instance, the budget is prepared for the twelve months. As soon as a quarter or three months completion next month or the quarter are added. It is always ensuring the twelve months under budget implementation period.

b. Function-Based Budgets

This kind of budget is very common. These can be further sub-classified as under:

c. Capital Based or Planned Budgets:

This budget is concerned with the major capital items (fixed assets) like CT, MRI, and other equipment. This kind of budget usually requires special funding or additional funding.

d. Operational Budgets or Non-Plan Budgets:

This budget is a regular one. It is prepared to ensure smooth management and improving operational efficiency. This kind of budget is helping to improve organizational goals directly.

e. Cash Budget:

This budget is an estimation of cash inflows and outflows for a specific period usually for one year. This budget serves the purpose of managing cash and meeting the short-term obligations efficiently. This also ensures the no dues arising out of accounts payable and accounts receivable.

f. Sales or Revenue Budget:

It is a very important aspect of private, corporate, charitable, and small and medium hospitals

including nursing homes. This budget is an estimation of the possible sources of revenue for the particular period usually for a year.

g. Expenditure or Production Cost Budget:

This budget is like a sales budget. In the sales budget, the revenue is projected wherein in the expenditure budget the expenses are projected. Further, some of the organizations look more specifically at the estimation of materials requirement, Labor requirement, Overhead, research, and development, marketing and promotions, etc. This budget is an estimation of the possible sources of expenditure for the particular period usually for a year.

h. Master or Final Budget:

It is a comprehensive budget. This covers the majority of the above-said budgets. This budget brings out the details of statistics (statistics budget), revenue (revenue budget or sales budget), expenditure (expenditure budget). This also provides information concerning the variable cost, fixed costs as part of the expenditure budget and finally provides a profit and loss account. Since it is considered final, it requires the approval of competent authority while implementation.

i. Flexibility Based Budgets:

Usually, a budget is prepared as part of cost reduction and cost control purposes. In such a situation the budget has less or no scope for flexibility. Therefore, it becomes necessary to categorically state the budget under fixed or flexible. The **fixed budget** is constant, it does not take into account any change in the increase or decrease in the operational activities. In healthcare services, sometimes the activity level is unpredictable. Hence the expenses may go up or go down. It is depending on the seasonal variance and emergency. Sometimes, it may be difficult to measure the performance of the hospital due to unrealistic yardstick in case the level of activity. The flexible budget is more or less connected with the level of activity. It considers the change in volume of services and promotes operational efficiency. It determines the cost or revenue with the level of volume of productions. It provides the scope for different levels of production for

example if a CT scan service would operate 100 percent capacity accordingly it specifies the Fixed costs, variable costs, and total costs, similarly the revenue. In case the CT department operates 80 percent or 90 percent accordingly the cost and revenue projections would be possible.

2.5 Strengths, Weaknesses, Opportunities, and Threats (SWOT):

It is to be noted that hospitals shall bear every year. It means it competes one year term and getting ready for another. The one-year period gives a lot of experience which includes financial challenges, operational challenges, patients related and legal issues. The hospital has to undertake an exercise in terms of understanding SWOT. Based on this the hospital has to understand the critical success factors (CSF) that would enhance operational efficiency, improving finance, customer satisfaction, and provide an opportunity for learning and innovation. This would facilitate the hospitals to allocate the resources optimally to the annual budget.

2.4 Budget illustrations

1. State Budget – Operational Budget

Table-1 Static Budget (Operational Budget)

**XYZ Hospital
Budget Period 1st April 2021 - 31st
March 2022**

Particulars	No of Unit	Unit Rate In Rs	Total Rs.
Revenue			
Outpatient Services	100	3	300
Inpatient Services	50	5	250
Number of X-Ray	1500	2	3000
Number of CT	200	5	1000
Number of MRI	250	6	1500
Laboratory Tests	400	3	1200
Physiotherapy cases	300	3	900
Occupational cases	100	3	300
Pharmacy – Prescription’s sales	500	5	2500
Total			10950
Expenses			
Variable Cost			
Visiting consultants in hours	200	0.5	100
Other professionals in hour	150	0.6	90
Materials in Unit	5000	0.5	2500
Supplies in Unit	2000	1	2000
A. Sub-Total Cost	7350		4690
Variable cost per unit	4690/7350 = 0.638		
Fixed Costs			
Salary			2000
Rent			1000
Overheads			1000
Other Fixed expenses			500
Sub-total Rs.			5500
Total Cost Rs.			10190
Profit Rs.			760

Operational budget preparation involves various aspects which include conducting SWOT, workforce analysis, and developing budget procedures.

a. Measuring Critical Success Factors (CSF)

Sl.No	Critical Success Factor	How to Measure the CSF
1	Financial Factors	
	Profitability	Earnings from operations, earnings trend
	Liquidity	Cash flow, the trend in cash flow, interest coverage, asset turnover, inventory turnover, receivables turnover
	Sale of services	Level of sales in critical product or service groups, sales trend, percent of sales from new services or new products, sales forecast accuracy
	Market value/ Volume achieved (no of patients, surgical procedures, diagnostic services)	The share price of limited company Hospital / Number of volumes over 5 years
2	Customer Factors	
	Patient satisfaction	Re-admission due to complications, repeat consultations, repeat tests and complaints, customer survey
	Channels of services (referral systems both upward and downward)	No of nursing homes, General Practitioners, Hospitals, and other sources of referral to hospitals No of referrals as per areas wise, disease wise, and other parameters Walk-in Patients by disease, areas, income, occupation, insurance coverage out of pocket patients
	Marketing and Promotions	Trends in patient's volume performance, training, market research activities and customer survey and marketing cost and time incurred per volume
	Timeliness of delivery	Waiting time in all key services Operational time in all key services Patient support services time Services extend outside the hospital
	Quality	Patient complaints, Patient satisfaction, Net Promoters score, quality assurance programs, and patient-centred services
3	Internal Business Processes	
	Quality	Number of defects, number of returns medicines, repeat procedure, surgery, test, patient satisfaction survey, amount of scrap numbers and value of materials and consumables, amount of rework, field service reports, legal climes (consumer protection act) quality defects process
	Productivity	Cycle time (from raw materials to finished product); quick services of non-clinical services (administrative and non-medical services), time extended by doctors and nurses (standard or more time to patients) labour efficiency; machine efficiency; the amount of waste, rework, and scrap
	Flexibility	OPD schedule, Surgery schedule, appointment time to various services, patient operating time (duration of services provided as per the convenience of patients); cycle time for all necessary services
	Equipment readiness	Downtime, operator experience, machine capacity, maintenance activities, waiting time, accessories available, after-sale services performance, availability of spare in case of major issues, vendor relationship
	Safety	Number of accidents, effects of accidents, clinical and medication error, injuries, any harm to patient both physical and socio-psychological aspects
Learning and Innovation		
4	Product or Service innovation	Number of service design changes (process innovation, improvement), number of new patents or copyrights, skills of research and development staff
	Timeliness of Service Delivery and innovative ideas on	Application of quality tools, patient safety tools, quality improvement, quality assurance, patient feedback, compliance and non-compliance, and reporting systems to the patients
	Skill development	Number of training hours, amount of skill performance improvement – doctors, nurses, technical staff, and non-medical staff who face the patients directly

The hospital budget committee has to take the above indicators and work seriously to understand the financial implications. In case to improve these factors, the necessary allocation has to be done.

a. Workforce Analysis

It is a major exercise that every hospital has to undertake while preparing the budget. The Human Resource Department plays a very important role in this matter. The HRD shall discuss with all operational heads both clinical and non-clinical and determine the number of new recruitments with desired skill and abilities. Further, the department also decides the number of staff shall leave or likely to leave, several trainees are available, etc., accordingly, the human resources planning is done. Some of the highly professional institutions shall undertake human resources rationalization, work simplification, and work-study exercise to get the number of employees needed and it is compared with an actual number of employees in the hospital. Projection is done based on these facts. One of the very important concerns during the process is considering the employee performance target – past performance and expected performance in the future. The workforce analysis thorough valuable information like several employees, training matrixes with calendar, areas of training to be provided, source of recruitment, sources of training and development and level of competency development and associated cost of all.

b. Developing Budget Procedures

Budget is realistic and realistic assumptions that govern the organization for a specified period. Hence it is important to focus on all aspects of developing a better budget. This includes certain prerequisites for budgeting, and Budget Administration (budget manual, budget officer, budget committee, budget period or calendar, and budget process)

c.1 Prerequisites for preparation of Budgeting

The hospital has to ensure certain aspects to make

better budgeting and implementation of such budgeting. It is keeping the simple, measurable, achievable, tangible organizational financial and services goals. It is important to have a clear organizational structure without any overlaps. Further, the hospital has to ensure a greater level of systems which covers all necessary financial and non-financial data which needed to make clear projection without any confusion. To make a better implementation of the budget, it is important to involve all the key stakeholders and also specify their roles and responsibilities about budget results.

About information from outside the hospital has to have good market intelligence systems. The essential data such as volume, price, patient expectations, patient perception, competitors' profile, market conditions, economic and social conditions of patients, various types of diseases including pandemic, etc. This would help the hospital to understand to project the Revenue and expenses and concession or possible revenue loss.

c.2 Budget Administration

To prepare a better budget and implementing the same efficiently certain documents are very important. This will provide better support to make budget administration.

c.3 Preparation of Budget Manual

A standard budget manual is very much necessary for every hospital. This can be modified depending on the change in the environment and key policies of the hospital. The manual can be prepared by a committee that includes the budget officer and head of the departments. This manual must be approved by a competent authority. The manual must include organizational objectives, budget procedures, responsible persons and their duties and responsibilities, review and approval system of budget, reporting format of budget, performance reviews, comparison of past reviews, and feedback from the budget implementers.

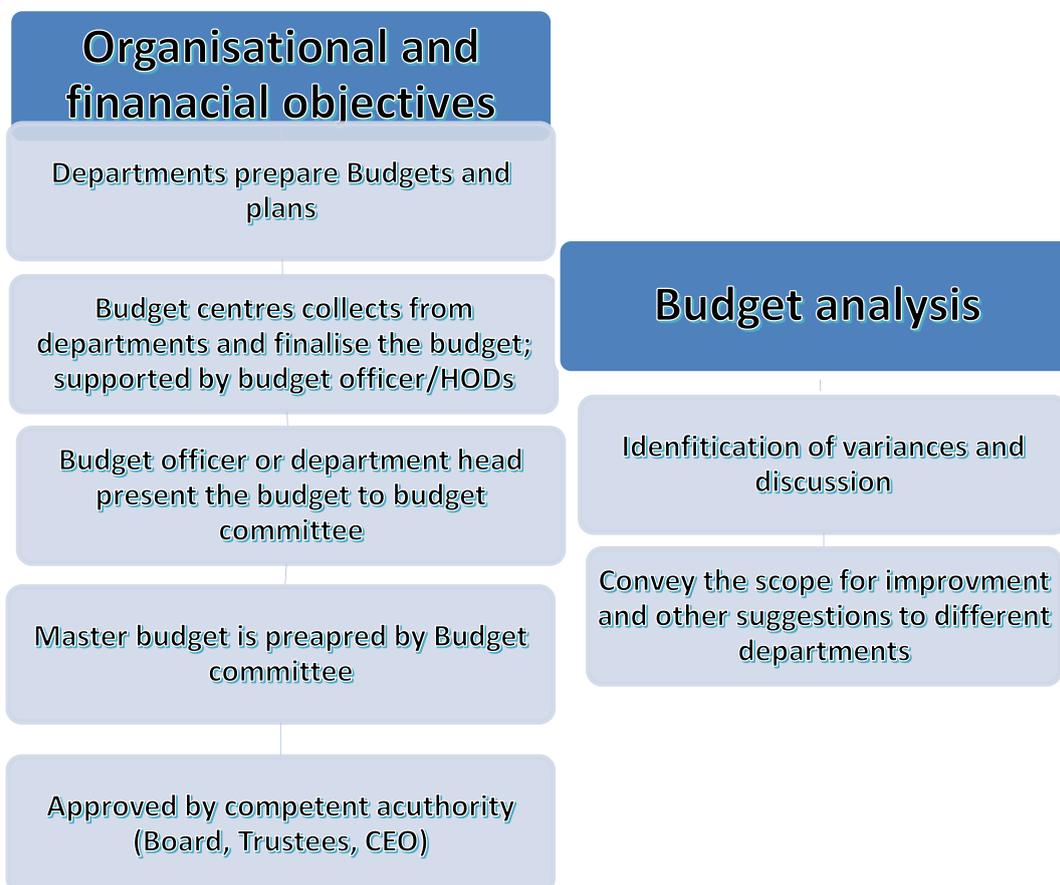
c.4 Budget Officer and budget committee

The budget officer shall be the coordinator when the budget is being prepared. He prepares the reports by incorporating the actual results with the original budget and identifies the favorable performance and unfavorable variables. He suggests to various departments to work on such unfavorable variables. He reports to the budget committee from time to time. Usually, the budget committee shall include CEO or Director Administration, Medical Superintendent, Finance Manager, and few clinical and non-clinical heads. The budget committee shall identify the opportunities and set goals, targets, guidelines, timeline, make a master budget, review the performance (actual with budget), and finalize the long-term budget and goals

c.5 Budget Calendar and Budget Period

Budget calendar means the series of event which need to be followed during the process of preparation and implementation of the budget. This includes department level budget, organizational level budget, budget presentation and negotiation, finalization of a master budget, approval of the budget, budget implementation period, review period, time for correction and intervention if any, supplementary budget, etc. The budget period usually beginning on April 1st and ending on 31st March. The budget period can however be longer as well as shorter.

Budget Process



Having a clear budget process would benefit the organization particularly making sure smooth planning process particularly identifying the resources, income, and expenses. Also helps to

identify the methods and practices for optimal use of such resources and help to reduce the cost and improve efficiency. The budget process specifies the responsibility and accountability, performance

appraisal, connecting various activities by ensuring coordination between various services and provide opportunities to make any changes, ensure databases that can help in monitoring, analyzing, and communicating the information to various

stakeholders.

After preparation of the operating budget and put through the implementation a flexible budget is prepared to carry out the budget analysis. Without budget analysis, the budgeting is not going to end.

Table -2 Flexible Budget

**XYZ Hospital
Budget Period 1st April 2021 - 31st March 2022**

Item No.	Particulars	No of Unit	Unit Rate Rs.	Total Rs.
	Revenue			
1	Outpatient Services	120	3	360
2	Inpatient Services	60	5	300
3	Number of X-Ray	1500	2	3000
4	Number of CT	200	5	1000
5	Number of MRI	260	6	1560
6	Laboratory Tests	450	3	1350
7	Physiotherapy cases	350	3	1050
8	Occupational cases	90	3	270
9	Pharmacy – Prescription’s sales	400	5	2000
	Total			10890
	Expenses			
	Variable Cost			
	Visiting consultants in hours	210	0.5	105
	Other professionals in an hour	130	0.6	78
	Materials in Unit	4500	0.5	2250
	Supplies in Unit	2200	1	2200
	Sub-Total Cost			4633
	Fixed Costs			
	Salary			2000
	Rent			1000
	Overheads			1000
	Other Fixed expenses			500
	Sub-total			4500
	Total Cost			9133
	Profit			1757

Table 2 indicates the flexible budget. The flexible budget is prepared by considering the data of operational budget unit rate (refer to the unit rate of table 1) with the number of volumes achieved in the

actual budget (refer to table 3 actual volume). If the situation exists without any change in the unit rate as per the operational budget in the actual scenario, the profit would be Rs.1757.

XYZ Hospital
Budget Period 1st April 2021 - 31st March 2022

Item No.	Particulars	No of Unit	Unit Rate	Total
	Revenue			
1	OPD	120	4	480
2	IPD	60	4	240
3	X-Ray	1500	2	3000
4	CT	200	5	1000
5	MRI	260	5.5	1430
6	Laboratory	450	3	1350
7	Physio	350	4	1400
8	Occupational	90	3	270
9	Pharmacy	400	4	1600
	Total			10770
	Expenses			
	Variable Cost	Unit	Unit Rate	Amount
1	Visiting consultants in hours	210	0.6	126
2	Other professionals in hour	130	0.5	65
3	Materials in Unit	4500	0.5	2250
4	Supplies in Unit	2200	1.25	2750
	Total Cost			5191
	Variable cost per unit			
	Fixed Costs			
	Salary			2000
	Rent			1000
	Overheads			1000
	Other Fixed expenses			500
	Total Cost			9691
	Profit Rs.			1079

Table 3 indicates that the actual results of the budget implementation. As per this table, the profit is Rs.1079. The original estimation of profit is Rs.760. Whereas the flexible budget indicates Rs.1757. This shows clearly that the actual performance is better than the planned budget however, there was scope to achieve Rs.1757, but there are factors that have affected this performance. The organization can conduct further analysis which includes variance analysis and performance analysis and find the real reasons for missing such great opportunities.

3. APPROACHES TO BUDGETING

There are several ways the budget can be prepared. A few approaches are highlighted for the information.

3.1 Incremental Approach: It is the common method of preparing the budget. Most healthcare organizations including all types of hospitals use this method. The incremental approach takes into consideration past performance and justifies the allocation of resources accordingly. It also takes into consideration of reasons for the success and failure of the past and plans to improve for the future. It adopts the features of cost control and cost reduction exercise while preparing and implementing the budget. Though this budget seems to be rational and provides justification it suffers from certain setbacks like it considers the last year financial performance focus little on the non-financial factors, most accounting oriented, primary focus on cost control and expecting the future assumptions based on the experience would be true.

3.2 Performance Budgeting Approach

Definition: Performance budgeting may be defined as the process of analyzing identifying, simplifying, and crystallizing specific performance objectives of a job to be achieved over a period in the framework of the organizational objectives.

This budget mainly focuses on coordinate the physical and financial aspects of organizational performance; involves all levels of management to do entire budgeting activities; measures the performance of budgeting keeping in view organizational goals in long-term perspectives.

3.3 Zero-Based Budgeting approach

4. Conclusion

Budget is a serious exercise. Hospital has to pay sincere attention while preparing as well implementing the budget. It is necessary to involve all key stakeholders' participation. It is seen growing efforts in developing information on the digital platforms but it is still yet to mature and better ways to use the data. Hospital has to have better documentation towards budgeting. Also, most importantly the methods and practice of preparing the budget. Further, there few tips while preparation of budgets like the hospital has to keep in mind to minimize the waste and increase the value to patients by adopting lean healthcare. Hospital budgeting is crucial to the annual performance of a health institution. Hospitals generally budget on an annual basis, so it's important they get it right to set the

This budget approach is much different from the performance and incremental approach. It does not consider any past data, or information, or performance to determine or project the budget estimation. It is a planning and budgeting process that requires each manager to justify the entire budget request in detail from scratch (hence zero bases) and shifts the burden of proof to each manager to justify why he should spend any money at all.

The primary focus of zero-based budgeting is to evaluate claims on scarce resources in the light of hospital objectives and to make tradeoffs amongst current operations, developmental needs, profits, and availability of resources.

the standard for the upcoming year. The hospital should look for the bigger picture – focus on patient experience and measure the performance at the department level. The hospital has to focus on cost reductions such as eliminating unnecessary lights and installing light switches in areas where lights can be turned off during certain hours can both be huge cost savers. Focus on contract services primary services and giving non-core services to outsourcing; understanding the importance and consequences of expenditure, and providing an explanation for each expenditure why it is done. It is critical to **use key performance indicators (KPIs) to track successes with hospital budgeting**. Without KPIs, you won't know whether or not you're on track with your hospital's goals.

The next issues shall focus on KPI and financial indicators for the hospital.

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Pragmatic Planning - Oxygen for our Mission Hospitals

1. Cylinder Oxygen: Oxygen is produced by liquefying air (by compression and cooling) and fractional distillation of the liquid air by gradual heating. Each element becomes gas as it reaches its boiling point – nitrogen at -196°C , oxygen at -183°C . The collected oxygen is then pressurized at 2000 psi (pounds per square inch) and filled into cylinders.



This allows a lot of oxygen to be stored in a small volume – say 'bulk cylinder' for the 7000 liter capacity cylinder. Cylinders hold oxygen at 2000 psi.

a. Cylinders are very mobile, easy to refill, cheap to rent or to buy and to refill. Electricity is not required for their use but they are dependent on the supplier and transporter and can be disrupted by either.

b. Liquid Medical Oxygen (LMO): After oxygen is separated from air using the above method, it is compressed and cooled again till it becomes a liquid. This allows oxygen to be stored in the most compact form – 1 liter of liquid oxygen produces about 850 liters of gaseous oxygen. The liquid oxygen is transported to the end-user facility and stored in special tanks (supplied by the company) from which it is released into the facility pipeline at 50psi



Up to 1000 liters capacity, the hospital installation can be done without a permit, above this, an explosives permit is required and a special facility should be created. The consumer pays for the refilling of the tank – about Rs. 4000 to refill a 1000 liter tank + transportation costs – this should provide 500 LPM for about one day. Since special refrigerated trucks are required to transport this form of oxygen, it is only

available in major cities where there is a demand or in industrial areas or on highways near one of the production centers. Electricity is not required but this is also dependent on the supplier and transporter and can be disrupted by either. Please Note: I have no personal experience with liquid medical oxygen but I think that installations of over 1000L require an explosives permit. That is why a common size is 990L.

c. Oxygen Plants: These compress atmospheric air, dehumidify it and then pass the air through chambers containing zeolite (molecular sieves) which absorb nitrogen. The resultant oxygen-enriched air is then passed through another similar chamber and then back to the first till the oxygen purity reaches about 93%. At this point, the oxygen is released into a pressurized container of about 500 to 2000 liter capacity which is connected to the main pipeline. This is called PSA (Pressure Swing Adsorption) technology. A similar method in which the air is first blown through the zeolite and then pressurized can also be used to produce oxygen called VSA (Vacuum Swing Adsorption). Oxygen plants require space, uninterrupted electricity, maintenance, and connection to pipelines. The output from the tank is at 50 psi which can run ventilators, anesthesia machines, and all other uses. Some of the advantages of VSA are, A. Use of oil-free blower, will avoid any oil-lubricated compressors and is great for medical applications.



B. Low operating pressure minimizes sieve dusting because the pressure swing is at an order of magnitude lower, which also results in lower operating costs. It is possible to use these plants to

compress the oxygen into cylinders. Such units cannot simultaneously supply oxygen to the pipeline. A 100 LPM (liters per minute) plant (Airox AS-G) will consume about 11 kW of power and cost about Rs. 25 to 30 lakhs. It will need ventilated space (about 300 sq.ft.), pipelines, automatic changeover switch to cylinders, cylinder manifold, and oxygen alarms at endpoints (ICUs, ORs, etc.). A 200 LPM plant (Cistron OG 500) will cost over Rs. 40 lakhs, 15 kW of power and 500 sq.ft. of space. The main advantage is that oxygen production is not dependent on an external entity and it is produced in-house. There is no need for an explosives license. However, the initial infrastructure costs are high and there is a requirement for continuous high-quality power. If power is disrupted, the storage tank will drain in about 15-20 minutes (depending upon usage) and there should be an automatic changeover switch that switches the load to a bank of oxygen cylinders. If possible, two plants should be installed so that one is available if the other fails. The manufacturer can be requested to train the hospital's maintenance staff so that they can carry out all routine maintenance without depending on the company's engineers traveling to the hospital. PSA plants consume more power because air is compressed and fed into the zeolite containing chambers. VSA plants blow air using a fan through the zeolite chambers and the oxygen is then compressed to pipeline pressures. VSA power consumption is therefore less - a 200LPM VSA plant will consume only 8kW instead of 15 kW for a PSA plant. However, PSA plants store oxygen in a pressurized tank, this allows pressurized oxygen to be available for about 20-30 minutes after power failure whereas VSA plants do not have the pressurized tank and oxygen supply stops immediately - this will drain the oxygen from the cylinder manifold if there are frequent power cuts. PSA plants can be used to fill cylinders but the additional compressor required will be very expensive - a plant to fill 50 bulk cylinders per day will cost about Rs. 1 crore.

2. Oxygen Concentrators: These use the same technology as oxygen plants but are miniature and provide oxygen at low pressure - they cannot be used to run any device which requires oxygen under high pressure.



They are suitable for oxygen delivered by masks and other non-invasive methods where the patient breathes on his effort. Some CPAP/BiPAP machines can use low-pressure oxygen to augment the FiO₂. Others (such as ventilators that offer an NIV mode) will require high-pressure oxygen. They are not suitable for some modes like high flow oxygen which requires 40 to 60LPM. They are commonly available at 5LPM and 10LPM capacities and cost about Rs. 50,000 to Rs. 1.2 lakh per piece. They should deliver at least 90% oxygen at their full capacity. These machines consume 500W to 1000W of uninterrupted power each. If power is disrupted, oxygen to the patient will stop immediately. Since most of these machines are connected directly to the patient and there is no automatic changeover system connected, the patient will quickly become hypoxic – it is therefore essential that these are connected to UPS/inverters with a secondary Genset backup. Their advantage is that they do not need pipelines and can be easily moved from one location to another. However, they can only produce low-pressure low volume oxygen.

3. Power: Oxygen plants and concentrators require power. The hospital should have a sanctioned load from the electricity board that will cover the additional power requirement. If this is not sufficient, the equipment can only be connected to the mains by disconnecting some other load and getting permission from the EB. Getting an augmentation of sanctioned load from the EB is a long process. It is good to calculate power requirements a few years in advance and apply them at least a year before transformers/gensets are purchased. Transformers

and gensets should have about 20% buffer capacity so that they are not overloaded. The amount of sanctioned load should neither be too small compared to demand nor too large – if it is too large, it will lead to unnecessary fixed monthly charges (which are based on the sanctioned load and not on consumption). In an emergency, power can be supplied completely off-grid (not connected to mains at all) using two gensets operating six hours each alternately.

4. Piping/alarms: should be done in permanent buildings using copper pipes and gas welding – it should be done by an experienced team. The pipes should be color-coded and there should be pressure alarms at every end-point. When pressures drop below preset levels, alarms will sound so that staff can connect equipment or patients to other oxygen sources. Purity monitoring is done at the plant but if required it can be done at the patient end using anesthesia gas modules (AGMs) measuring oxygen concentration when set to 100%.

5. Medical Air plants: If the hospital has several ventilators and anesthesia workstations, it will be good to invest in a medical air plant that produces compressed dehumidified air and feeds it into pipelines through a storage tank. Humidity in the air damages the internal parts of the ventilators, the air is again humidified before delivery to the patient. These cost a few lakh rupees. Ideally, there should be a backup compressor so that there is redundancy if the original compressor fails. They will also need uninterrupted power (depending on the compressor size)

6. Oxygen demand/supply for a hospital can be calculated using the online tool at <https://opencriticalcare.org/oxygen-supply-demand-calculator/>

7. Rough estimation of demand can be done by noting the time taken to empty a known volume of oxygen - eg. a bank of 4 bulk cylinders.

8. Vacuum plants: If the hospital has multiple vacuum points, a separate vacuum plant (with two reverse compressors), a vacuum tank, and pipelines

should be considered. These replace a large number of small vacuum machines, their initial cost and maintenance costs.

9. Calculating oxygen requirements: A calculation should be done for regular hospital use (non-Covid – wards/ventilators/anesthesia machines etc.) and for a surge capacity (when a Covid ward is opened). The oxygen sources should be diversified so that if one fails, another is available – patients should not die because of oxygen disruption. If possible, it is good to have all 4 types of sources. LMO is not possible in most rural/remote situations. If a plant much larger than required is bought (even if it is free), it will lead to a lot of power consumption and maintenance costs, so it should be right-sized. The surge capacity should be realistic based on available manpower, ventilators/other devices, and estimated beds. Additional oxygen cylinders can be purchased or rented for short-term use (if available). Cylinder oxygen and LMO do not require power, so they should be available as a backup for plant failure. Similarly, cylinders and LMO are vulnerable to supplier/transporter disruption, so plants/concentrators should be available as a backup. Requirements can be made for the current wave (to be available ASAP) and also for the future –

to build surge capacity for a future wave. I am told that the cost of LMO is Rs. 14/- per liter in Trichy - that will be Rs. 14,000/- for a 1000L refill. A 10 HP medical air plant with compressor and dehumidifier will cost Rs. 6 lakhs.

10. Maximizing available oxygen: With so many connections, leaks can waste a lot of the available oxygen – these should be checked as part of preventive maintenance. The lowest amount of oxygen required should be provided and wall points should be tightly closed when not required. Low-pressure oxygen can be provided using concentrators when available so that high-pressure sources are reserved for applications where only they will suffice. Innovations that work should be implemented when oxygen is in short supply. If all else fails oxygen triage will be required – to ration the use of oxygen providing it only for those most likely to survive. Maximizing available oxygen: an additional point could be, "Anesthesia workstations and ventilators that do not use oxygen as a driving gas will reduce oxygen demand".

(Based on collected facts).

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Makunda Christian Leprosy and General Hospital

Oxygen Concentrators - Pricing & Availability for NGOs/Mission Hospitals/Charitable Institutions Dt. 17 May 2021

WAKE-UP CALL P

S. No	Name of the Brand	Name of the Model	Max. Capacity	Oxygen Purity	Additional Features	Power requirements	Weight	Certifications	Warranty	Est. Date of delivery	Price
10 Liters											
1	Longfian	Jay-10	10 LPM	93% +/- 3%	Optional Dual Flow	<= 550 W	30 kg/26kg	ISO, CE, FDA	N/A	31st May	Rs. 1,00,000/- + GST
2	Olive	OLV - 10	10 LPM	93% +/- 3%	Nebulizer	<= 550 W	28 kg	ISO, CE, FDA	N/A	1st week of June	Rs. 1,05,000/- + GST
3	Jumao	JMC-9A Ni	10 LPM	93% +/- 3%	Optional Nebulizer	580 W	25/23 kg	ISO, CE, FDA	1 Year	1st week of June	Rs. 1,30,000/- + GST
4	BPL	Oxy 10 Neo	10 LPM	93% +/- 3%	Nebulizer	<= 850 VA	33 kg	ISO (OEM -CE, FDA)	1 Year	1st week of June	Rs. 1,50,000/- + GST
5	Genworks	Chaban Group - OxyTec 1	10 LPM	93% +/- 3%	Optional Dual Flow	<=550 VA	27/28 kg	ISO, CE, FDA	1 Year	July/Aug	Rs. 1,45,000/- + GST
6	Microtek	Oxyflow 10 A	10 LPM	93% +/- 3%	Optional Nebulizer	880 W	27/30 kg	N/A	1 Year	End of June/July	Rs. 1,05,000/- + GST
8 liters											
1	Genworks	Chaban Group - OxyTec 8	8 LPM	93% +/- 3%	Optional Dual Flow	<=540 VA	19.2 kg	ISO, CE, FDA	1 Year	July/Aug	Rs. 1,00,000/- + GST
5 liters											
1	Jumao	JMC-5A Ni	5 LPM	93% +/- 3%	-	390 VA	18.5 kg	ISO, CE, FDA	1 Year	2 Days; Immediate	Rs. 85,000/- + GST
2	BPL	Oxy 5 Neo	5 LPM	93% +/- 3%	Nebulizer	300 W	19 kg	ISO (OEM -CE, FDA)	1 Year	31st May/June	Rs. 80,000/- + GST
3	Trivitron	i Oxy Plus	5 LPM	93% +/- 3%	-	450 VA	16.5 kg	ISO	1 Year	1 week - 23rd May	Rs. 70,000/- + GST
4	GenWorks	Chaban Group - Oxytec 5S	5 LPM	93% +/- 3%	Dual Flow	320 VA	15.9 kg	ISO, CE, FDA	1 Year	July/Aug	Rs. 80,000/- + GST
5	Dr. Morepen	OC - 01	5 LPM	93% +/- 3%	Optional Nebulizer	390 VA	20/16 kg	N/A	1 Year	1st Week of June	Rs. 85,000/- + GST
6	Philips	Respironics Everflo	5 LPM	93% +/- 3%	Oxygen Percentage Indicator	350 W	14 kg	ISO, CE, FDA	1 Year	End of June/July	Rs. 85,000/- + GST
Notes: 1. The above mentioned prices & availability are only for specific NGOs/Mission Hospitals/Charitable Institutions only. Prices are subject to change 2. Shipping extra											

Mr. James Karunakar
Lead- Global Marketing, GE Health Care
Volunteer- COVID India Campaign
Supporting COVID Warriors with required assistance

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"Healthcare is always going through a lot of change, and sometimes employees, managers and even physicians, think we are making those changes because somebody in administration decided it's the right thing to do. The reality is, we're reacting to what's changing in the marketplace or what we believe will be coming in the marketplace. If we don't adjust fast enough, then it will negatively affect our organization and employees."



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