

# AN OVERVIEW OF HEALTH CARE COSTING

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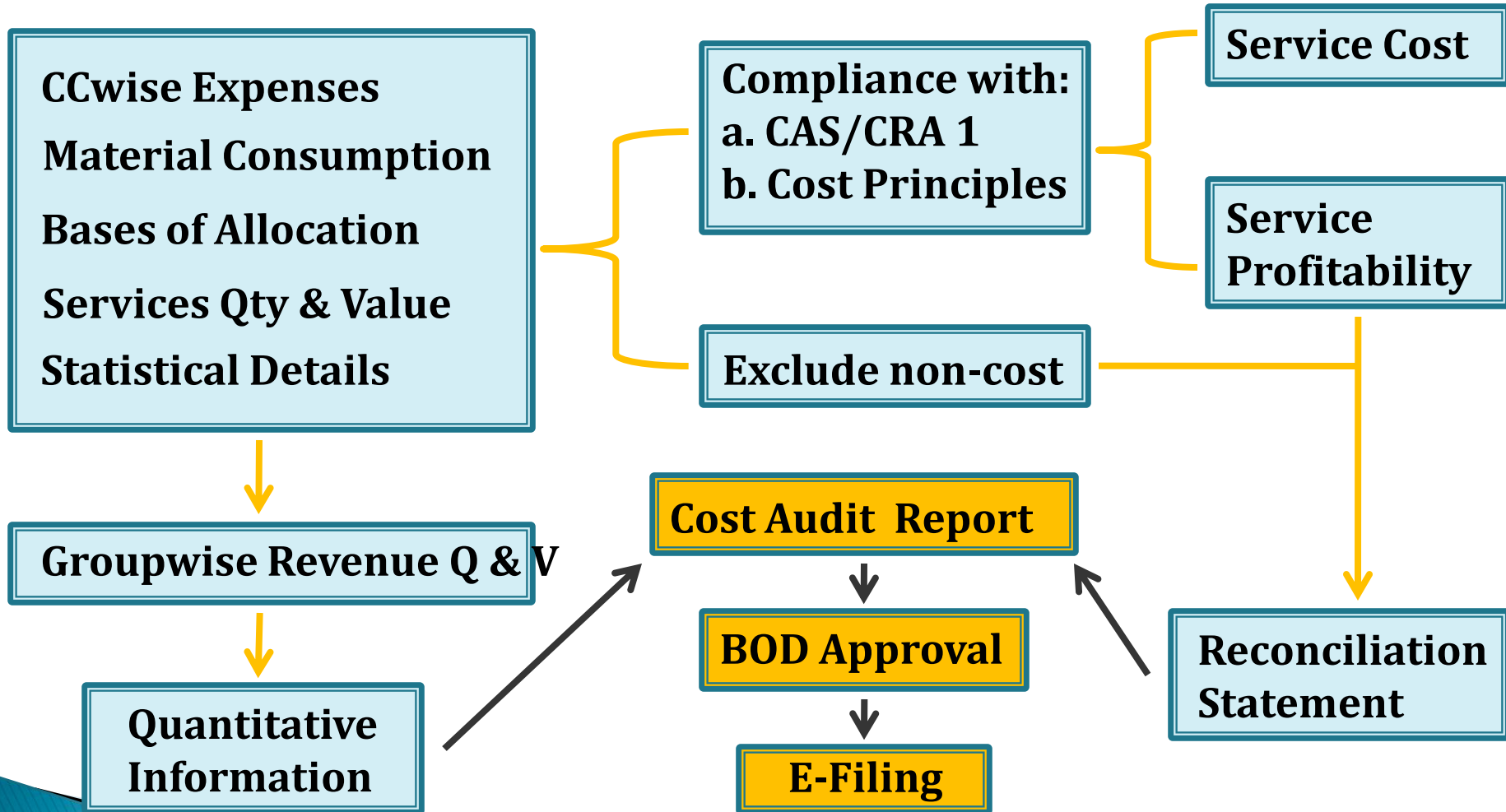
# Cost Accounting Records and Audit Rules 2014

- ▶ Section 148 of the new Companies Act 2013 empowered the Government to notify the new cost accounting rules and cost audit rules as per the needs of the section.
- ▶ Cost Accounting standards not referred to but reference to Cost Audit standards are there.
- ▶ **The hospital sector and some more service sectors were covered under these new rules.**
- ▶ Many aspects of the new rules need clarification and guidance and hence we need to equip now broadly as the refinement will evolve.

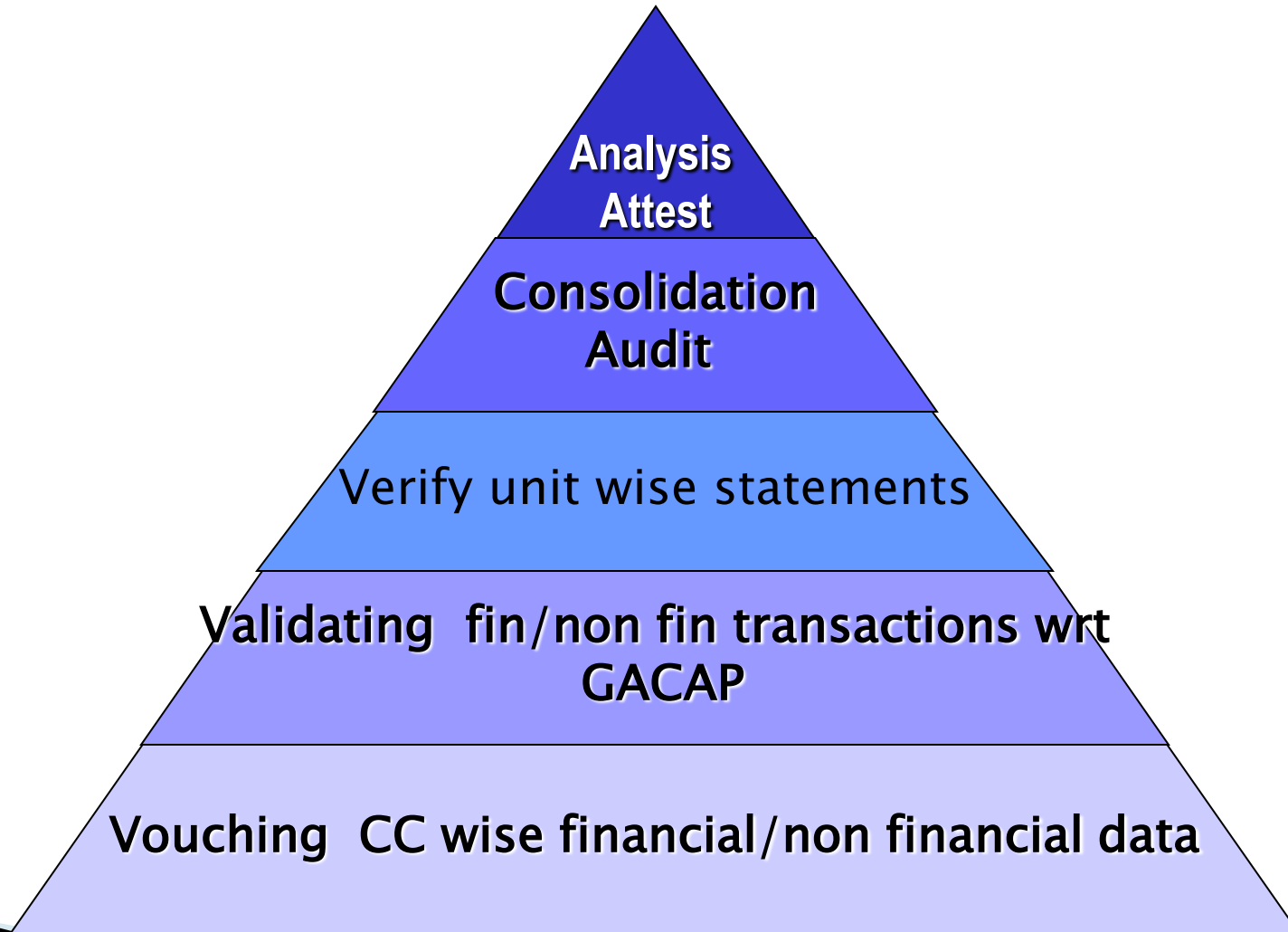
## ▶ Applicability

- Corporate Hospitals beyond a threshold limit covered by cost records maintenance and cost audit.
- The company will have to submit within 30 days after receipt of report from the Cost Auditor a report to the MCA with the detailed cost statements as attachments.
- Non Corporate and Corporate hospitals will both come under the control of the Ministry of Health (MOH) circular on cost records.
- MOH has issued formats and guidelines relating to submission of cost information in the prescribed format by all hospitals including corporate hospitals.
- Treatment wise cost structure will have to be externally submitted.
- **The implications will have to be discussed ?**

## ► Process Flow



# Hierarchy in Audit Process



# HEALTH CARE

```
graph TD; HC(HEALTH CARE) --> H[Hospitals]; HC --> CE[Clinical establishments]; H --> GH[Govt. hospitals - PHC, Dist hospital, Gen. Hospitals]; H --> PH[Private Hospitals - includes nursing homes, mid tier, and top tier private hospitals. It also includes Trust, Charitable & NGO Hospital Category];
```

Hospitals

Clinical establishments

Govt. hospitals -  
PHC, Dist hospital,  
Gen. Hospitals

Private Hospitals - includes  
nursing homes, mid tier, and  
top tier private hospitals. It also  
includes Trust, Charitable &  
NGO Hospital Category

# HEALTH CARE

```
graph TD; HC(HEALTH CARE) --> P[Pharmaceuticals (Medicines & Medical Consumables)]; HC --> D[Diagnostics]; HC --> M[Medical Equipments Management]; HC --> I[Medical Insurance]; P --> P_desc[Storing, providing medicines maintaining quality levels both for inpatient and outpatients in a hospital]; D --> D_desc[Comprises businesses and laboratories that offer analytic or diagnostic services including body fluid analysis]; M --> M_desc[Includes establishments primarily engaged in medical equipment management and supplies such as surgical, dental, orthopaedic, ophthalmologic, and laboratory]; I --> I_desc[Includes health insurance and covers an individual's hospitalization expenses and medical reimbursement facility incurred due to sickness];
```

**Pharmaceuticals (Medicines & Medical Consumables)**

Storing, providing medicines maintaining quality levels both for inpatient and outpatients in a hospital

**Diagnostics**

Comprises businesses and laboratories that offer analytic or diagnostic services including body fluid analysis

**Medical Equipments Management**

Includes establishments primarily engaged in medical equipment management and supplies such as surgical, dental, orthopaedic, ophthalmologic, and laboratory

**Medical Insurance**

Includes health insurance and covers an individual's hospitalization expenses and medical reimbursement facility incurred due to sickness

# Broader View of Healthcare Costing

1. Break down the revenue streams from different services
2. Break down the cost to different cost center & map costs to cost pool / activities
3. Match the revenues with costs using the activity links
4. Remove non cost item like discretionary costs, sunk costs
5. Remove non operating revenue like interest received, miscellaneous income
6. Identify and quantify cost drivers
7. Match cost pools / activity pool with cost driver
8. Decide on suitable allocation keys and apportion costs to objects.
9. Compare cost of each service group with revenue generated and arrive at profitability.



# Revenue Stream

## **Out Patient Revenue**

### **A) Medical Services**

Consultation Fee  
Cardiology Services  
Injection & Immunization  
Charges  
Neurology  
Casualty  
Day Care  
Master Health Check-up  
Diabetology  
Ambulatory Care  
Dialysis  
ENT Services  
Endoscopy  
Colonoscopy & Etc.

### **B) Medical Support Services**

OP Registration Charges  
Lab Services  
Radiology Services  
Blood Bank services  
Diet Counselling  
Physiotherapy  
Ambulance Services

## **In-Patient Revenue**

### **A) Medical Services**

Doctor's Fee  
Surgeon Fee's  
Neurology Services  
Surgeon Charges  
Operation Theatre Charges  
Anaestheician Charges  
ICU Charges  
Room rent charges  
Special Nursing Charges  
Nursing Charges

### **B) Medical Support Services**

Admission & Documentation  
Lab Services  
Radiology Services  
Medical Counselling  
Medical legal Charges  
Blood Bank Charge  
Oxygen Charges  
Mortuary Charges  
Surgery / Procedure Charges  
Medical & Surgical  
Consumables

## **Pharmacy Income**

Out-Patient (O.P.) Pharmacy  
In-Patient (I.P) Pharmacy  
Trauma Center Pharmacy  
Rehabilitation Center  
Pharmacy

### **Other Operational Income**

Admission charges  
Outsourced Pharmacy  
Outsourced Lab  
Infrastructure (IFS) Charges  
Telemedicine Consultancy  
R&D income on assignment  
basis

# Expenditure Stream

## 1. Operational Expenditure

- ▶ **Medical Departments**
- ▶ **Medical support Departments**
- ▶ **Service Departments**

## 2. Non- Operational Expenditure

- ▶ **Administrative Expenses**
- ▶ **Capex**
- ▶ **Others**

# Expenditure Stream-Operational

## Medical Department Expenses

Doctor's Fees  
Surgeon's Fees  
Clinical Expenses  
Operation theatre  
Implants Expenses  
Nursing Expenses  
Emergency Exp  
Casualty Exp

## Medical Support Service Dept

Pharmacy Exp.  
General Lab Exp  
Referral Lab. Charges  
Radiology Exp  
Pathology Exp  
Blood Bank Exp  
Ambulance Services Exp  
Mortuary Exp  
R & D Exp  
CSSD( central sterile services division)

## Service Dept

Help Desk  
Stores  
Food & Beverage  
House Keeping  
Medical Record Exp  
Equipment  
Maintenances Exp  
Training Exp  
Call Centre Exp  
Oxygen & Gas Charges  
Power & Fuel exp  
Bio-Medical Wastage

# Expenditure Stream-Non operational

## -Administrative

- Staff Salary
- Other maintenances Exp
- Transportation Exp
- Travelling Exp
- Telecommunication Exp
- Office Exp
- Books & Periodicals Exp
- Rent , rates & Taxes Charges
- Director's Fee

## -CAPEX

- Patient
- Copyright & Trademark
- Surgical Equipments
- Medical Tools
- Medical Furniture

## -Others

- Finance Exp
- Legal Exp
- Advertisement & Sales promotion
- Insurance
- Audit Fees

# Classification of Cost

- ▶ Assigning general ledger cost into direct, indirect and overhead groups improve the ability to analyses information at the Hospital and patient level.
- ▶ It provides an understanding of costs that arise directly as a result of patient care.
- ▶ There may be occasion when cost needs to classified in different ways for specific reporting purpose.

## **-Direct Costs**

- Critical Care
- Diagnostic
- Imaging
- Emergency Department
- Maternity
- Operating Theaters
- Wards
- Pharmacy
- Special procedure Suites
- Radiotherapy
- Special treatment rooms
- Therapies
- Pathology
- Blood Bank
- Others

## **-Indirect Costs**

- Capital Charges  
(depreciation & cost of capital )- equipments
- Catering and Linen
- Clinical Safety, quality assurance
- Equipment Maintenance
- Medical records
- -Sterile Services
- Training
- Pharmacy Services  
(Running Cost)
- Security

## **Overheads**

- Utilities
- Deprecation Building
- Administration
- HR and PR
- Cleaning and Housekeeping
- IT
- Rates and Taxes

# Creation – Cost pool and Cost Pool Groups

- ▶ Grouping costs into cost group has three main purposes:-
  - a. To show component of patient care and provide useful groupings to analyze and report cost.
  - b. To enable comparison of costs at individual and accumulated patient level for benchmarking purpose.
  - c. To facilities the information of cost allocation and information system.

Cost Pools groups are “type of costs”, forming a set of components. Major cost pools may be created in hospitals are as follows:-

- Blood and blood products
- Critical Care
- Drugs
- Emergency
- Imaging
- Operating theater
- Outpatients
- Pathology

# Profit center

Profit Centre	Sub Profit Centre
Wards	Intensive Care unit, Suite class, Deluxe Room, Semi private, Common Class
Operation Theater	Cardiac, Dabetology, orthopedics, Surgeries, Others
Procedure wise Description	Knee Transplant, Heart Transplant, Liver Transplant, Hair Transplant, Bones Transplant, other
Blood Bank	Blood Test , Blood Culture , Blood units
Radiology / imaging / Diagnostic	Ultrasound , ECG, CT Scan, Lab test, MRI, ECO, X-ray, etc.
Health Checkups	Basic, Cardiac , Gold , Deluxe, Platinum ,
Casualty Days	Emergency / Non Emergency
OPD Consultation	Cardic, Dental , General, Ortho, Nero, Gyeno, Medicines, etc.

# Cost Driver

Profit Center	Cost Driver	Service Center	Cost Driver
Wards	Patients Days	Admission , Kitchen Laundry , Linen, Cafeteria	No . Of admission
Operation Theater	Total Hours ,Time Taken	Pharmacy	Total Turnover
Procedure wise Description	No of Procedure	AC, Power, Steam ,	Technical Estimate
Blood Bank	No of units	Administrative Departments / Marketing Departments	Revenue Generated
Radiology / imaging / Diagnostic	No of Tests performed	Security	Floor area
Health Checkups	No of Patients	ICCU , ICU,	No of Patient
Casualty Days	No of Patients (IPD and OPD separately)	Mortuary	Administrative Overhead
OPD Consultation	No of patients	STP, Wastage Plants , Bio- Medical Plants	Ratio of General Overhead



# Cost Matrix

Types of Expenses	Ortho	Trauma	Emergency	Nuero	Gyeno	Etc / Other	Total
Doctor Fee							
Surgeon fee							
Nurses							
Other Support Staff							
Imaging							
Medicine/ Consumable							
Power							
Repair & Maintenance							
Deprecation							
Rent							
General Exp							
Cafeteria							
Effluent							

*Harvard Business Review* article, “The Strategy That Will Fix Health Care” states that

For a field in which high cost is an overarching problem, the absence of accurate cost information in healthcare is nothing short of astounding. To go one step deeper,

1. The *Centers for Medicare & Medicaid* projects a total healthcare spend in the U.S. of \$3 trillion this year, \$4 trillion in five years and \$5 trillion within 10 years – The *Institute of Medicine* estimates that one-third of that spend is wasted
2. The *American Hospital Association* recently announced that hospital margins are now down to nearly two percent and one-third of hospitals operate in the **red** .

Coupled with the shift to reimbursement structures where providers won't be paid for volume, it is clear that better understanding and aggressively managing costs is now a requirement for healthcare providers.

## WHY COST ACCOUNTING & COST MANAGEMENT IN HEALTH CARE?


This lack of accurate, reliable cost data is an enormous risk to the long-term viability of hospitals and health systems.

Most hospitals don't even know if they are making or losing money on service lines or episodes of care

Archaic costing systems are a black hole. The data isn't accessible, actionable or accurate.

To fill this cost void, hospitals will require applications that provide better access (data liquidity) to accurate cost data (data integrity) and the ability to drill into that data at a deeper, more actionable level (data density).

The end game will be to leverage that cost data to make better, more informed decisions that can have a positive impact on the bottom line, from both a clinical and financial perspective.



**THANK YOU**