

MIDDLE EAST
HEALTHCARE
FINANCE
EXECUTIVES

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HIMSS Middle East



Financial Performance Indicators (FPIs)

15:30 - 16:10 | Session 1

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Conference and Exhibition 2014 13-14 APRIL 2014,
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Session Outlines

- Overview of Financial Measurement Indicators
- Why Measure?
- How Can We Establish Measurement System for Public Healthcare? (At National & Organizational Level)
- Who Should Establish It?
- Final Thought

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PART 1

Overview of Financial Measurement Indicators

Measurement Indicators

Metrics that can be expressed by either financial or non-financial terms, and used to **define** and **measure** progress towards achieving **objectives** or **targets**.

Both **Financial Performance Indicators (FPIs)** & **Key Performance Indicators (KPIs)** are equally important.

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Financial Performance Indicators (FPIs)

- Example of FPIs

Usually used in the day- to-day operation of a typical finance department

- Payables (creditor) period
- Receivables (debtor) collection period (i.e., in case of Business Centers)
- Inventory holding period
- Cash Flow (Liquidity)
- Budgeted vs. Actual Spending

**** Smaller scale/ understood by finance staff only.**

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Key Performance Indicators (KPIs)

Widely used across the organization & help decision makers to:

1. Determine adequate funding levels for hospital operation & expansion projects and also support discussion with fund provider (MOF)
2. Achieve optimum use of available resources (best utilization)
3. Cut down waste (direct & indirect)
4. Avoid unnecessary cost (malpractice)
5. Provide evidence for Value-for-Money (VFM)

**** Medium scale/ understood by both financial & non-financial staff**

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Example of KPIs

Dimension	Measure	Dashboard Metric
Access to Care	ER Waiting Time	% of Patients Treated & Discharged In Less Than 2 Hours
Quality	30 Day Hospital Re-admission	% Of Total Discharge Re-admitted Within 30 Days
Quality	Mortality	% of In Hospital Deaths/Total Monthly Discharge.
Safety	Hospital Acquired Infection	% of Patients With Hospital Acquired Infection As Percentage Of Monthly Discharges.
Safety	Number of Adverse Events	Total Number Of Patients Injuries During The Month
Cost	Cost/ Discharge	Total Monthly inpatient operating Cost/Total Number of Discharge

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Financial Indicators (National Level)

Larger Scale/ Understood by Healthcare Economy & Policy Experts

1. **Demographics** of the patient population.
2. **Disease prevalence** – Heart Disease, Diabetes, Cancer, Renal Failure.
3. **Capacity Planning** – Good, organized, uniform data required to cost.
4. **Healthcare Cost per Capita**
5. **Beds to Population Ratio**
6. **Nurses to Population Ratio**
7. **Physicians to Population Ratio**
8. **Coverage Plan of National Policy for Healthcare Insurance.**
9. **Integrated Care Concept**
10. **Care Anywhere Concept** – (Mobile Hospitals & Telemedicine).

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PART 2

Why Measure?

Why Measure?

To ensure that the public healthcare system/organization fulfill its mission and primary objective which is : “To deliver the highest **quality care** to **most people possible** at the lowest possible **cost**.”

1. Accessibility
2. Safety & Quality of Care
3. Cost Containment

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Why Measure?

Hospital Boards Basic Governance Functions

- Keeper of the Mission
- Set Direction and Expectations
- Accountable for Funds & Resources
- Monitor Progress
- Hire and Evaluate the Executives

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Why Measure?

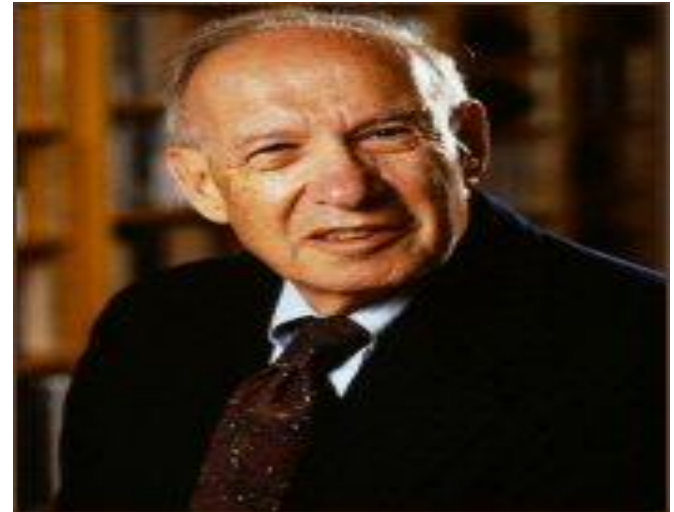
1. Understand (events, processes, trends)
2. Take an action (preventive, corrective or improvement).
3. Tracking, monitoring and control.

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Why Measure?

“if you cannot **measure** it you cannot **improve** it”

Peter Drucker



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PART 3

How Can We Establish Measurement System for Public Healthcare?

How Can We Establish Measurement System for Public Healthcare?

7 key issues must be first addressed:

1. Need Recognition
2. Government Mandates & Economic Policies (Council of Health Services in coordination with Ministry of Economy & Planning and MOF)
3. Level of Adaptability (Organizational vs. National vs. International)
4. Type of Healthcare Facilities (Classification: e.g. PHCs, Hospitals)
5. Facility Size (Performance & Scalability Issues)
6. Availability of Data for Analysis
7. Design & Infrastructure (Modern Digital Hospitals)

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Data Availability for Analysis

Certain statistics and research data are readily available within each Ministry's organization, however the ability to utilize this information for the recommendation of Capital Investment to the MOF remains difficult and creates problems within each Ministry and nationally for many reasons:

- **Format of Information** – can it be utilized easily?
- **Linkability of the Information** - can the clinical data be linked to the financial data?
- **Data completeness** - consistent, accurate.
- **Reconcilability** - can the IT data on an activity of a clinical department be reconcilable with the Department's other internal records & annual statistics?

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Partial Solution Implementation of Diagnostic Related Groupings (DRG)

Recently the Council of Saudi Health Services gave the directive that Saudi Arabia had become a licensed Country to utilize the ICD-10 and Diagnosis Related Groups-DRG's. The impact of this is that all healthcare ministries will have to implement the system.

This will result in:

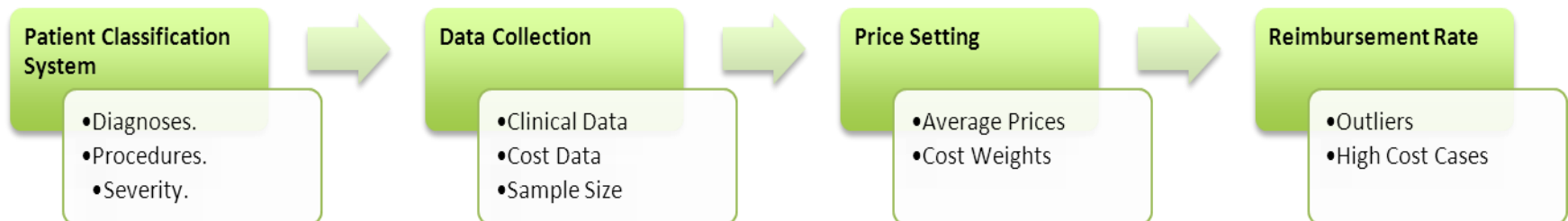
- **Increased Transparency.**
- **Induce Efficiency.**
- **Support the Management of Hospitals.**
- **Clearly identify needs of services against activity.**
- **Provide the initial step to activity-based costing.**

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Essential Building Blocks of DRG Systems

All DRG- type hospital payment systems principally build on **two mechanisms**:

1. Assigning hospital services delivered to individual patients to comparable groups through coding.
2. Determining the weight or price for each of these groups.



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Impact of DRGs on Hospital Design

- **Pre-design stage** – Scope and actual requirements can be based on better **scientific benchmarks** in relation to activity and cost. Nationally, a more accurate review of **requirements** can be developed **based on real data**.
- **Design Stage** – Much better evaluation of clinical needs to case mix and physical accommodation.
- **Construction Costs-** if the Scope is clear the construction will require minimal variation orders increasing COST and TIME.

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Impact of DRGs on Hospital Design

- **Operational Costs:**
 - Manpower – early budget requirements known.
 - Consumables – because case mix is understood based on the activity, procurement strategy can be planned earlier and potential costs reduced.
 - Medical and Non- Medical Equipment- requirements are better understood, therefore clear specifications can be developed.
 - Maintenance Costs.
 - Life-Cycle Costs.
 - Equipment Replacement Cost.

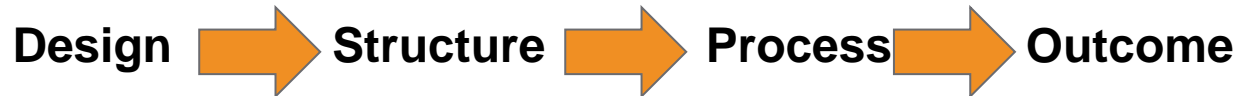
A badly designed facility will contribute to an increase in all of the above, due to a domino-effect from the initial design.

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Design & Infrastructure

Modern Digital Hospital (Smart Design)

Good design leads to good structure and good structure leads to good process and good process leads to a good outcome.



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Digital Hospital Framework (IBM)/Cleveland Clinic Abu Dhabi

1	Health Analytics
2	Staff Management
3	Care Orchestration
4	Electronic Medical Record
5	Client/Patient Services
6	Business Management
7	Clinical Logistics
8	Integration
9	Operation
10	Infrastructure
11	Intelligent Buildings

**11 Levels
&
49 Components**

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Modern Digital Hospital (Smart Design)

1	Health analytics	Master data management	Data warehouse	Performance and quality management	Compliance/reporting	Enterprise content management	
2	Staff management	Library and evidence base	Staff scheduling and credentialing	Clinical, allied and staff development			
3	Care orchestration	Resource scheduling	Patient referral and coordination	Care process optimization	Telehealth		
4	Electronic medical record	Care settings	Specialty services	Chart management and coding	Ancillary services		
5	Client/patient services	Enterprise master patient management	Eligibility management	CRM/patient billing	Patient engagement		
6	Business management	Human capital	Financial management	Enterprise resource planning	Bed management		
7	Clinical logistics	Real time location services	Tracking and alerts	Clinical messaging	Ancillary departments	BYO device	
8	Integration	Medical device integration	System integration	Application integration	Data integration	Multi-channel integration	Vendor neutral archive
9	Operations	Data management	Data center management	IT operations	Application management		
10	Infrastructure	Medical grade network	Servers and storage	Device integration	Unified communications	Security and privacy	
11	Intelligent buildings	Energy management	Water management	Waste management	Space management	Building operations	

Source: *Whitepaper - the digital hospital evolution | Creating a framework for the healthcare system of the future.*

IBM Global Business Services | Healthcare | April 2013

3-A

National Level Issues

Accessibility Issue

- To bring the beds ratio to ≥ 4 **beds per 1000** population (i.e. similar to the **4 beds** ratio in North America and Europe).

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Cost Containment Issues

ISSUES- NATIONALLY

- Are we building to meet the needs of the population and Case Mix?
- Are we building too many facilities, are they in the correct region?
- Are all healthcare delivery Stakeholders working to the same plan?
- Should there be more pressure to integrate Centers of Excellence to minimize duplication of services in MOH, NGHA, MODA, MOI etc?

ACTIONS

- Review of existing data, (is there good data available?)
- Needs Analysis based on data.
- Existing services review, feasibility studies and business cases.
- Improved cross Governmental body transparency with joined up thinking and possible sharing of resources.

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3-B

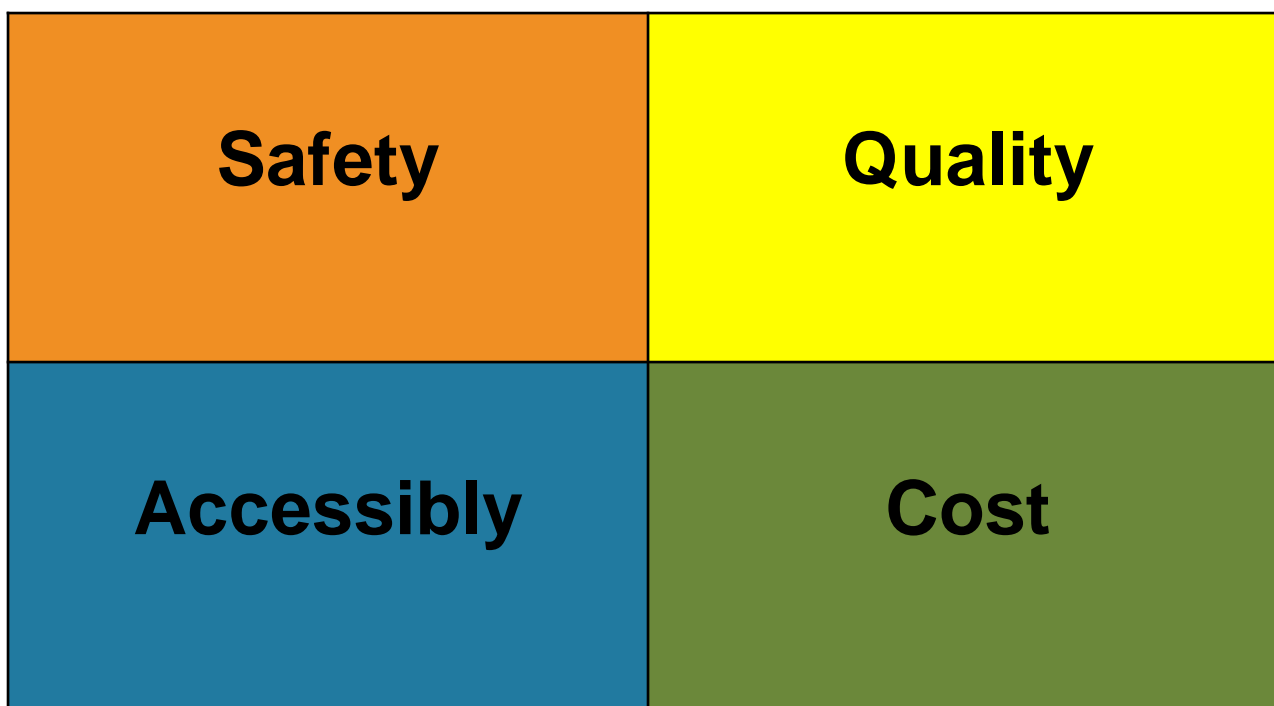
**Organization Level
Issues**

Key issues That Every Hospital Board of Directors Must address?

1. What are they willing to promise **patients** about **safety** at their hospital, the **level of care and service** that will be provided?
2. What are they willing to promise the **public** community about **access** and **cost**?
3. Are they achieving what they need to achieve?
4. How do they know?

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Balance Scorecard



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Patient Safety Indicators (PSIs)

Example of PSIs

1. Wrong Surgery Rate (*wrong side, wrong body part, or wrong person*)
2. Rate of Foreign Body Left During Procedure
3. Rate of Wrong Medications
4. Rate of Hospital Acquired Infection
5. Rate of Patient Injuries
6. Blood Transfusion Adverse Reaction
7. Hand Hygiene Compliance Rate

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Quality of Care Indicators (QCIs)

Example of QCIs

1. Inpatient Mortality Rate
2. Early Re-admission Rate
3. % of Patients Receiving Care According to Evidence
4. % of Patients Receiving Care According to hospital standard Care Plan
5. Better Outcome and Reduced Length of Stay (*measured in days*)
6. Staffing Level & Training Hours (*for staff with direct patient contact*)
7. Patient Experience (Satisfaction Rate)

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Cost or Financial Performance Indicators (FPIs)

Examples of FPIs

1. Bed Turnover (length of stay (LOS) by patients)
2. Cost Per Discharge per Diagnostic Related Group (DRG)
3. Cost of Bed Per Case Mix Index (Secondary vs. Tertiary Cases)
4. Cost of Outpatient Visits (Primary vs. Secondary Cases)
5. Cost of Salaries & Overtime (Clinical vs. Non-clinical Staff)
6. Cost of New, Operating and Aging Capital Equipment
7. Inventory Turnover (Medications, General Surgical & Nursing Supplies).

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Timely Accessibility Indicators

Examples

1. Total Registered Patients (Classified According to Eligibility Code)
2. Admission Beds Occupancy Ratio
3. Surgery Beds Occupancy Ratio
4. Procedure Beds Occupancy Ratio
5. Outpatient Appointment Waiting Lists.
6. Elective Surgery Waiting Lists
7. ER Waiting Time (% of patients treated & discharged in less than 2 hours)

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PART 4

Who Should Establish It?

Who should establish it?

1. **At an organizational level:** Hospital Board of Directors
2. **At a national level:** Council of Health Services in coordination with Ministry of Economy & Planning and Ministry of Finance (MOF). (i.e. National Health Accounts Unit)
3. **At an international level:** WHO (Access & Cost) /JCI Commission (Quality & Safety)

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National Health Accounts Unit



- The unit was established upon the cabinet decision number 11 dated to 12/1/1434 H (26 November 2012) to work on finding a system for the national health accounts in the kingdom and working on applying these accounts which **enables measuring and collecting the financial flows in the health system** with its different levels and Identifying the expenses and expenditures patterns in health services.

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Final Thought

Final Thought

Similar to the MAP-Key initiative of **Healthcare Financial Management Association (HFMA)** we hope that **the Middle East Health Finance Executives (MEHFEx) Forum** will help lead a regional/national initiative to establish healthcare standardized metrics (i.e. FPIs/KPIs) in coordination with related government bodies and other national healthcare associations.

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Thank you

Financial Performance Indicators (FPIs)

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