

HEAT RECOVERY EQUIPMENT

DAYLIGHT AND SOLAR CONTROL
WALL & WINDOW INSULATION + TIGHTNESS
100% FILTERED FRESH AIR,
WARMED/COOLED WITH DEPARTING AIR

SEPARATE, DISTRIBUTED AIR SUPPLY AND
HEATING/COOLING

**Trinidad &
Tobago
2014**

Hospital Efficiencies - Challenges & Feasible Solutions

REDUCED AIR SUPPLY/
LIGHTING IN VACANT ROOMS

GROUND-SOURCED HEAT EXCHANGE





AGENDA

- ✓ Introduction
- ✓ Efficiency Models
- ✓ UHWI Model

Introduction

Definitions for Efficiency

Entity	Definition
Institute of Medicine (IOM), 2001	Avoiding waste, including waste of equipment, supplies, ideas, and energy.
Palmer & Torgerson, 1999	Health care resources are being used to get the best value for money.
Economic theory	Technical efficiency means that the same level of the output cannot be produced with fewer of the inputs.
Economic theory	Productive efficiency refers to the maximization of output for a given cost, or minimization of cost for a given output.
Economic theory	Social (or Pareto) efficiency exists when no one can be made better off without making someone else worse off.
AQA alliance	A measure of the relationship of the cost of care associated with a specific level of performance measured with respect to the other five IOM aims of quality.
U.S. Government Accountability Office	Providing and ordering a level of services that is sufficient to meet patients' health care needs, but not excessive, given a patient's health status.
Medicare Payment Advisory Commission	Using fewer inputs to get the same or better outcomes. Efficiency combines concepts of resource use and quality.



Doing More With Less

Top Issues Confronting Hospitals

Issue	2013	2012	2011
Financial challenges	2.4	2.5	2.5
Healthcare reform implementation	4.3	4.7	4.5
Governmental mandates	4.9	5.0	4.6
Patient safety and quality	4.9	4.4	4.6
Care for the uninsured	5.6	5.6	5.2
Patient satisfaction	5.9	5.6	5.6
Physician-hospital relations	6.0	5.8	5.3
Population health management	7.6	7.9	—
Technology	7.9	7.6	7.2
Personnel shortages	8.0	8.0	7.4
Creating an accountable care organization	8.6	8.6	8.4

Source: American College of Healthcare Executives, Annual Report, 2013

Key Financial Challenges

Financial Challenges (n = 388) ¹		
Government funding cuts		85%
Medicaid reimbursement (including adequacy and timeliness of payment, etc.)		81%
Medicare reimbursement (including adequacy and timeliness of payment, etc.)		71%
Bad debt		67%
Decreasing inpatient volume		64%
Increasing costs for staff, supplies, etc.		50%
Competition from other providers		40%
Inadequate funding for capital improvements		39%
Revenue cycle management (converting charges to cash)		37%

Efficiency Models

Can NHS hospitals do more with less?

Research report
Jeremy Hurst and Sally Williams

January 2012

Case Study – Efficiency Models

The Determinants of Hospital Efficiency

Hypothesis - the determinants of hospital efficiency fall into three distinct categories:

- 1) External Environment:**
Financial pressures; market forces; performance monitoring, management; availability of cost-effective treatments and technologies
- 2) Hospital Management:**
Leadership; effective management practices; cooperation between managers and clinicians; speed of adoption
- 3) Hospital operational processes:**
shortening length of stay; measures to reduce errors and increase quality.

Case Study – Efficiency Models

Lessons Learnt

1) External Environment:

- ✓ Financial pressure is associated with improvements in ‘crude’ productivity, its impact on quality is less clear.
- ✓ The introduction of new technology that holds promise for improving quality, however it is difficult to reap net cost savings from new technologies.

2) Hospital Management:

- ✓ Good leadership, effective management practices and strong clinical engagement are the cornerstones on which hospital efficiency can be improved.

3) Hospital operational processes:

- ✓ There is a vast amount of knowledge about how to extract efficiencies from hospitals. What is much more difficult is to put these into practice in a concerted and sustained manner.
- ✓ Quality & Efficiency are positively related
- ✓ Staff costs are the first place to look for efficiencies



Achieving Efficiency: Lessons from Four Top-Performing Hospitals

Synthesis Report • July 2011

JENNIFER N. EDWARDS, SHARON SILOW-CARROLL,
AND AIMEE LASHBROOK
HEALTH MANAGEMENT ASSOCIATES



Case Study – Efficiency Models

The Determinants of Hospital Efficiency

Hypothesis – it is possible to achieve top scores in quality of care while keeping resource use low.

Study Sample- “hospitals that had made “big leaps in health care safety, quality, and customer value.”

- 1) Fairview Southdale Hospital - Edina, Minn.,
- 2) North Mississippi Medical Center - Tupelo, Miss.
- 3) Park Nicollet Methodist Hospital - St. Louis Park, Min.
- 4) Providence St. Vincent Medical Center - Portland, Ore.

Case Study – Efficiency Models

Lessons Learnt

- 1) Pursue **quality** and **access**, **not efficiency** per se.
- 2) Reinforce the culture by giving staff **meaningful opportunities** to improve patient care
- 3) Use **technology as tools** to improve quality and efficiency. While technology by itself does not assure quality or efficiency, it can help tremendously if incorporated in daily practices.
- 4) Manage staffing and **adjust roles** to meet patient needs and reduce costs.
- 5) Emphasize **communication** among providers, patients, and families to improve transitions.
- 6) **Standardize** processes and supplies.

We don't have goals for efficiency. It's a byproduct of our success in focusing on what's right for the patient and excellence in quality of care.... [It is] a trailing indicator.

Dennis Noonan, former CFO,
Providence St. Vincent Medical Center

Looking at hospital efficiency is potentially misleading. We need to look at efficiency of caring for a population.

David Abelson, M.D., CEO,
Park Nicollet Methodist Hospital



Australian Government
**National Health and Hospitals
Reform Commission**

**THE AUSTRALIAN HEALTH CARE SYSTEM:
THE POTENTIAL FOR EFFICIENCY GAINS**

A REVIEW OF THE LITERATURE

**Background paper prepared for the
National Health and Hospitals Reform Commission**

June 2009

Case Study – Efficiency Models

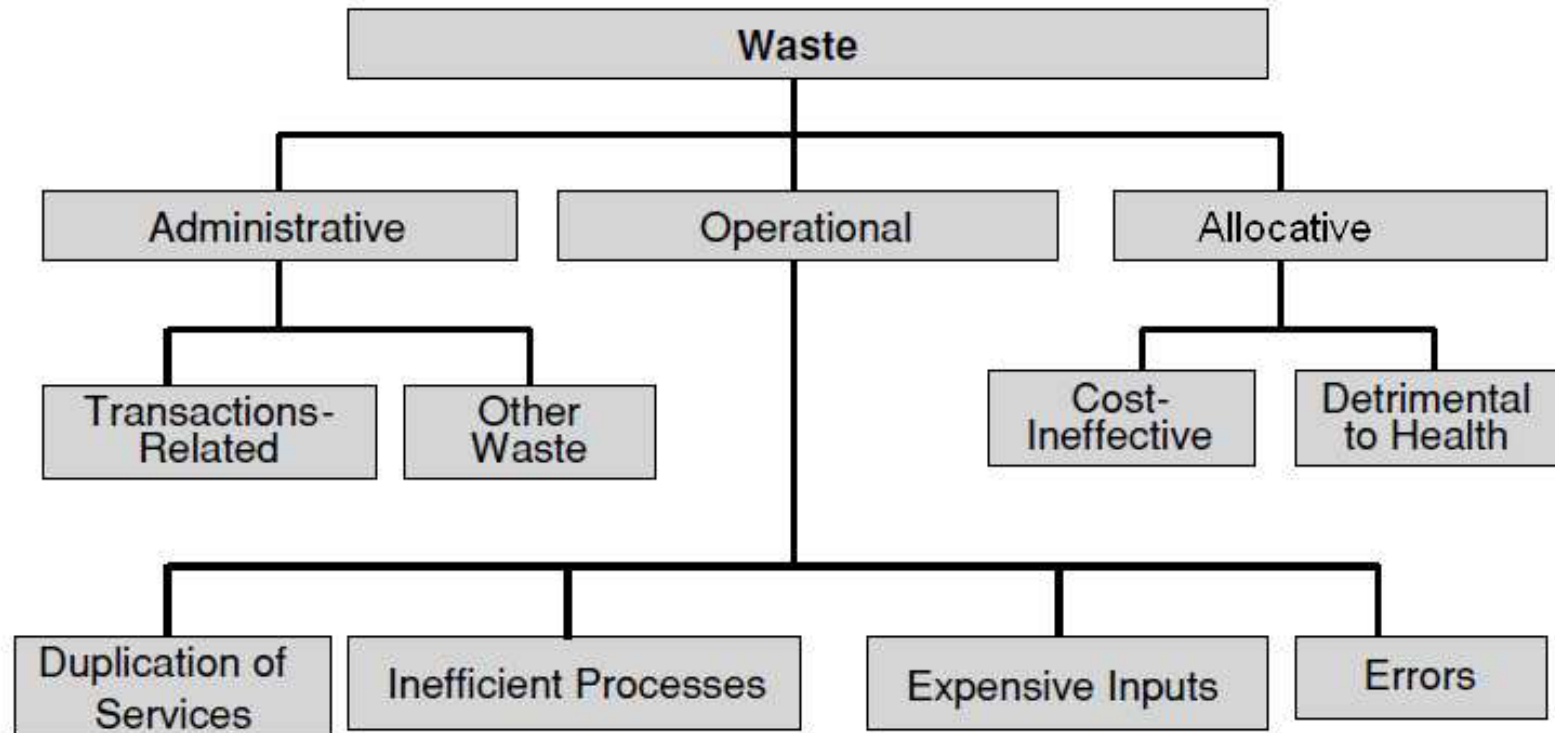


Figure 1: A framework for waste in health care (Source: modified from Bentley *et al.*, 2008)

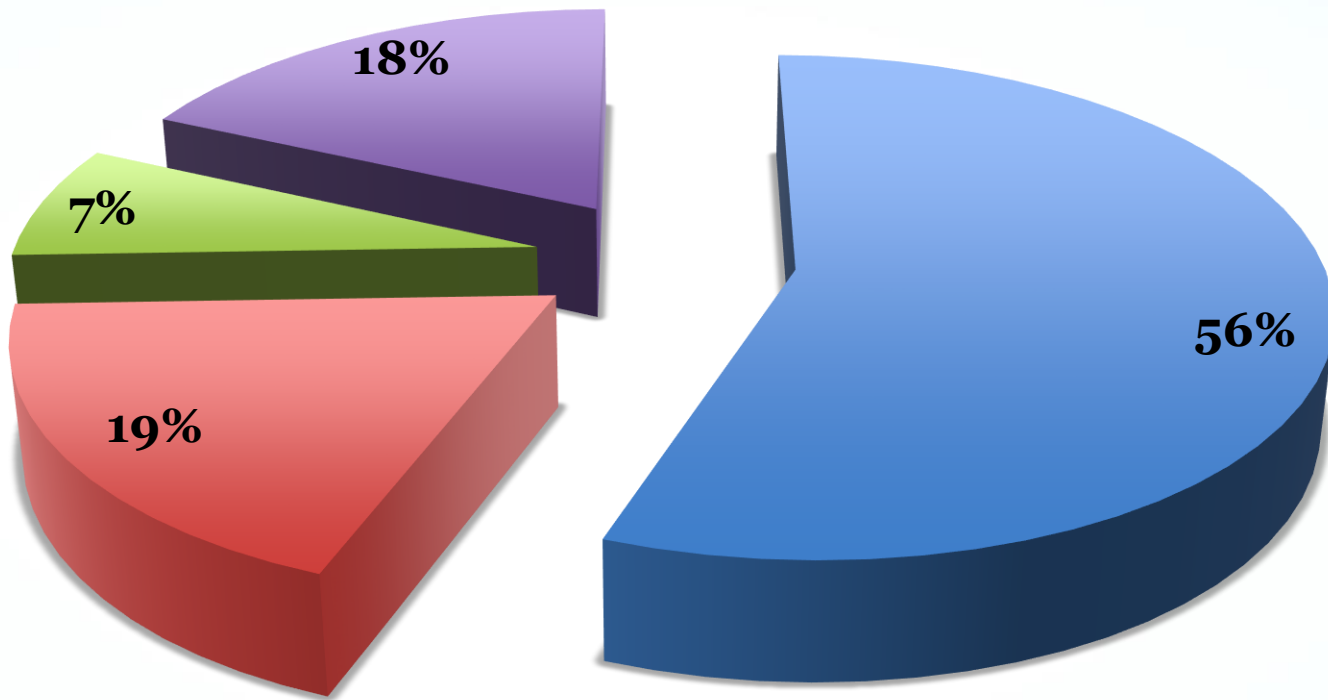
- **Operational inefficiency or waste** refers to the inefficient and unnecessary use of resources in the production and delivery of services
- **Allocative inefficiency** produces the wrong output.

Source: *The Australian Healthcare System: The Potential for Efficiency Gains, 2009*

The UHWI Model

UHWI Funding Model

“a tight fiscal space”



Current - US \$60 M

■ Min. of Health - Ja ■ Min. of Ed. - Ja ■ Min. of Ed. - Other Terr. ■ Patient Fees

UHWI Efficiency Model

Patient Satisfaction



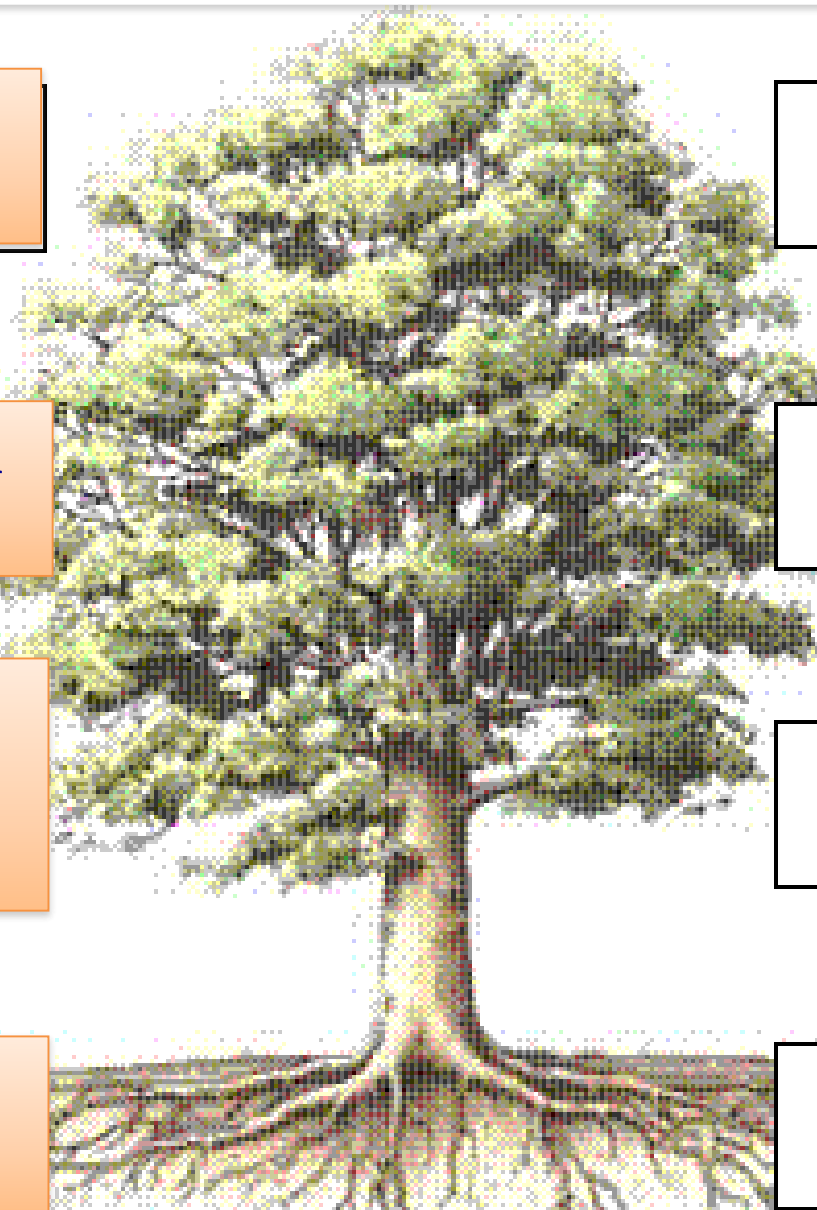
Organizational Development



Clinical & Business Processes



Financial Sustainability



Mature Fruits



Photosynthesis

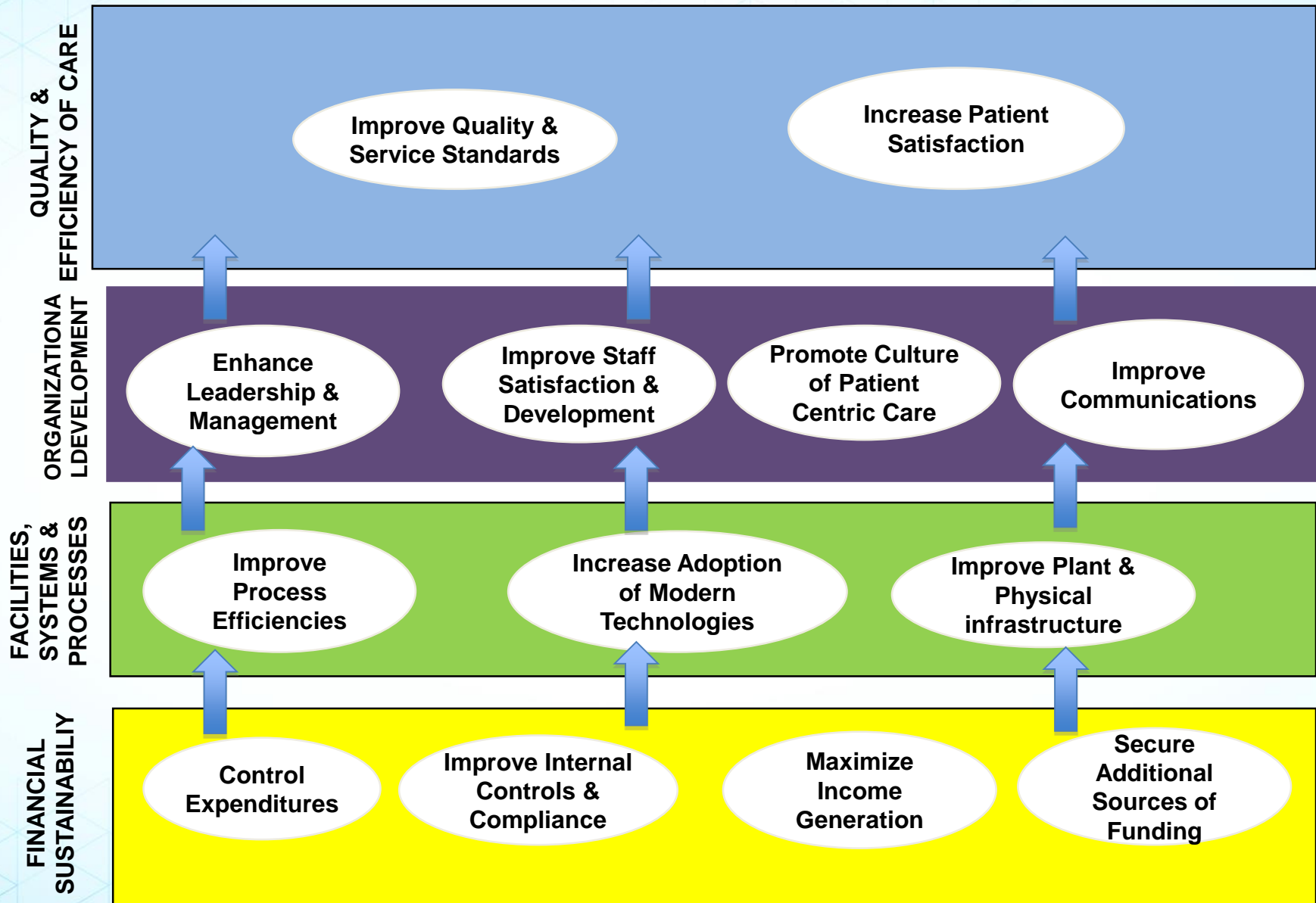


Trunk & Branches

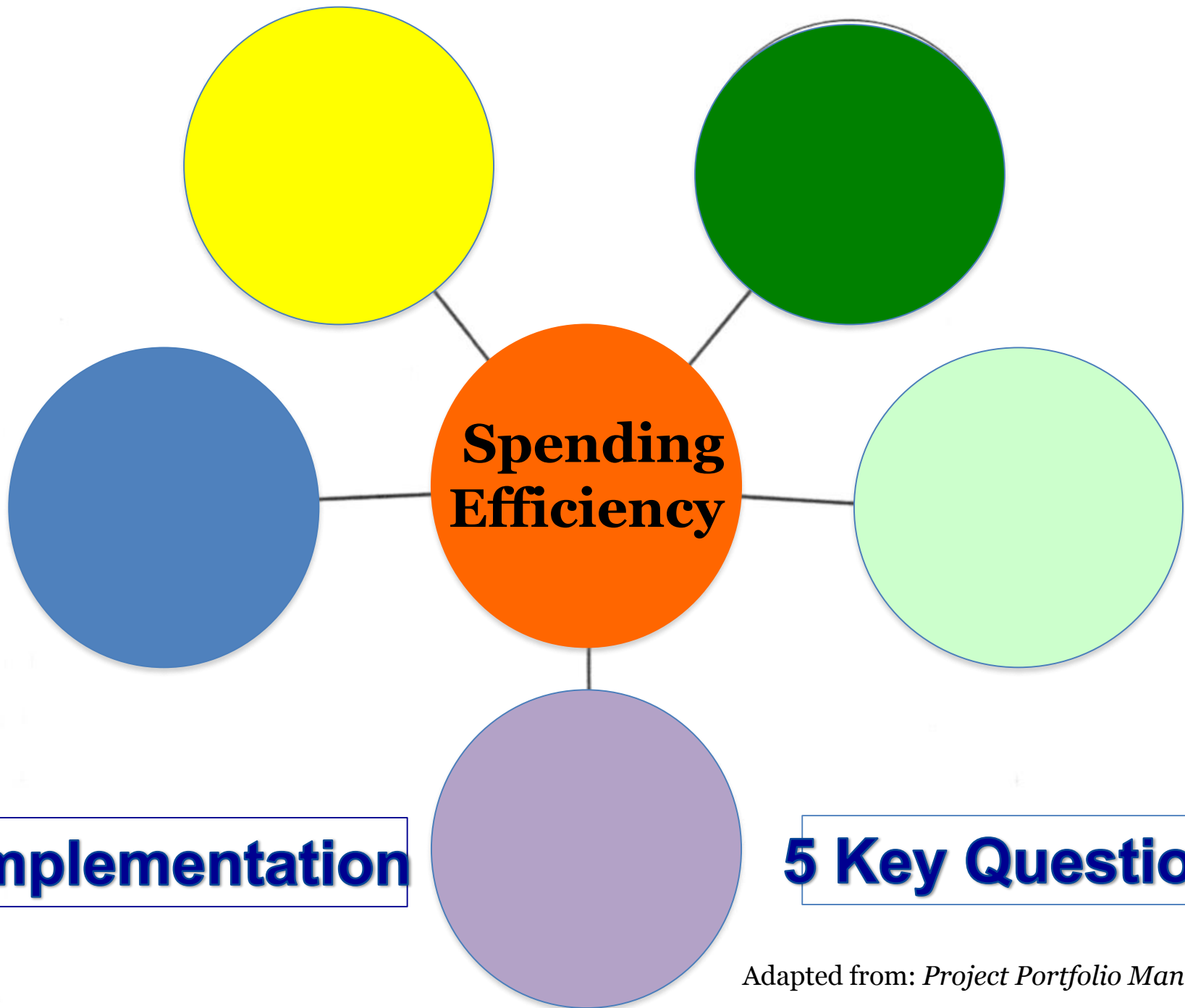


Compost & Roots

UHWI Strategy Map



Source: *The Balanced Scorecard*, Kaplan & Norton, 1992

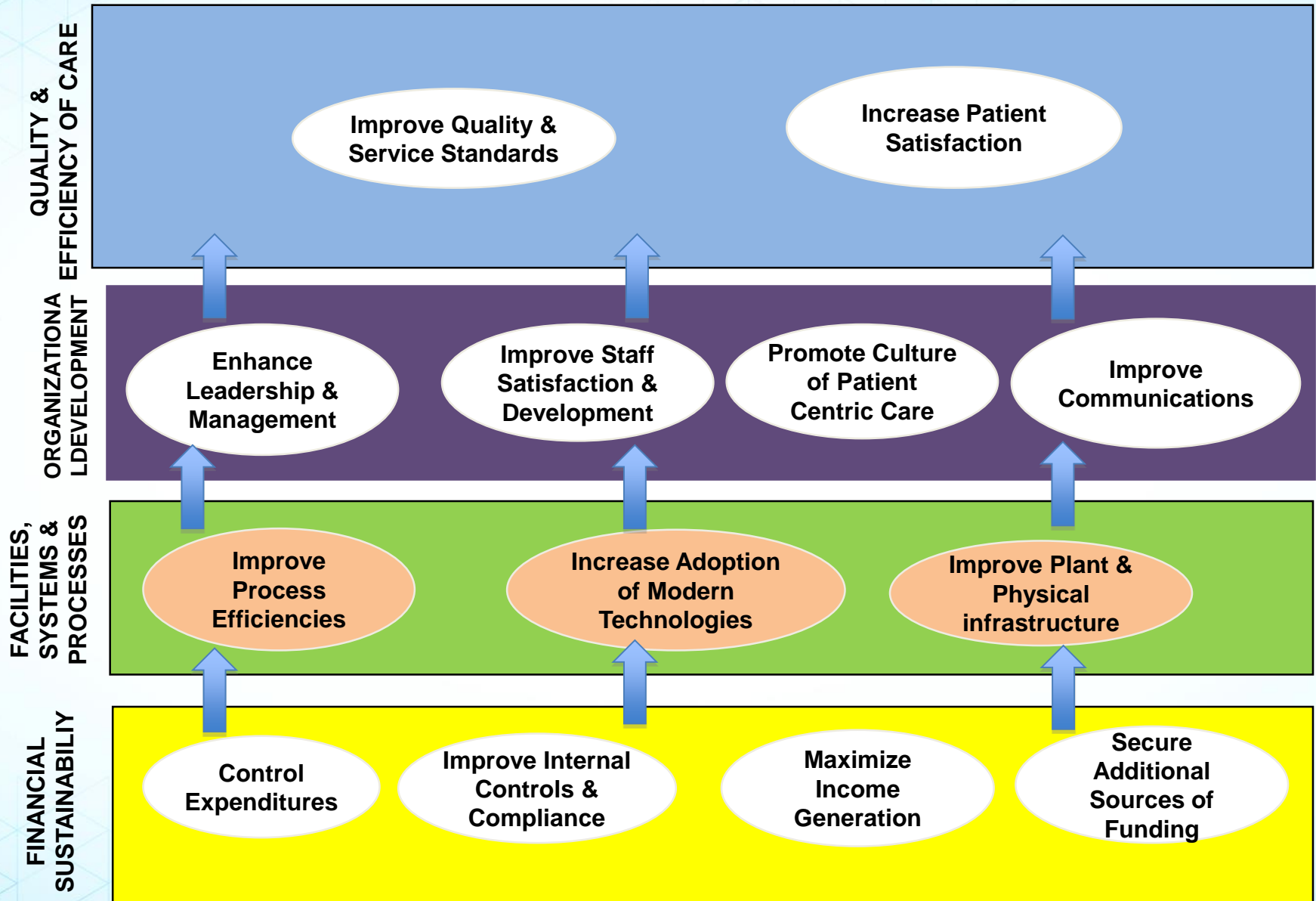


Implementation

5 Key Questions

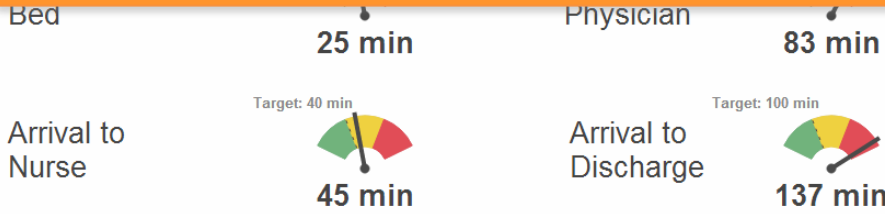
Adapted from: *Project Portfolio Management*

UHWI Strategic Priorities



Source: *The Balanced Scorecard*, Kaplan & Norton, 1992

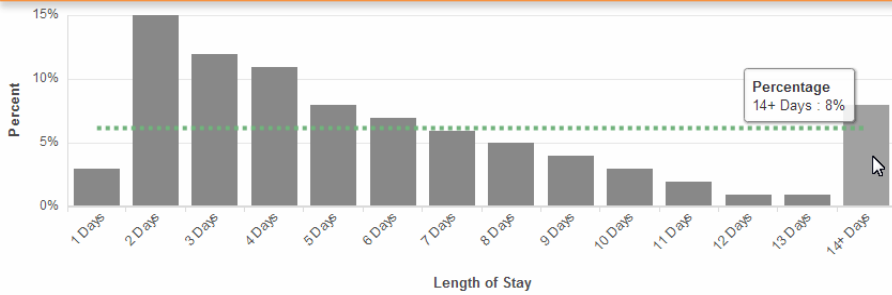
Average Cycle Time



Diagnostic Turnaround

aPTT	72 h	78 h	-7.69%
Basic Metabolic Panel	24 h	26 h	-7.69%
Complete Blood Count	24 h	28 h	-14.29%
Comprehensive Metabolic Panel	48 h	52 h	-7.69%
Electrolyte Panel	24 h	23 h	4.35%
Sedimentation Rate	96 h	94 h	2.13%

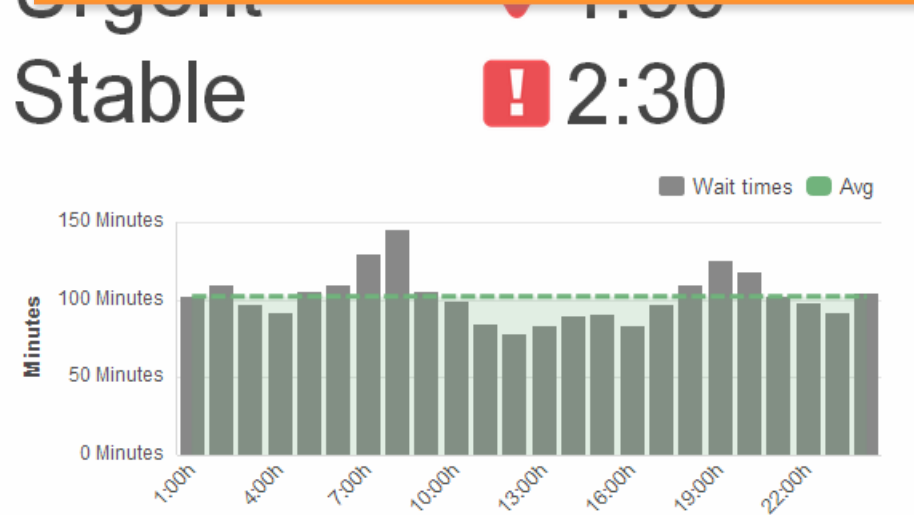
Average Length of Stay



of Patients Waiting

Patient A	10	Urgent	✓	1:06	1
Patient B	12	Stable	✗	1:47	4
Patient C	6	Urgent	⚠	0:52	2
Patient D	4	Stable	✓	0:45	5
Patient E	9	Stable	✗	⚠ 2:03	6
Patient F	3	Urgent	⚠	1:24	3

Average Waiting Time





Occupancy Levels



Hospital Efficiency

Doing More With Less

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References



- Edwards JN, Silow-Carroll S, and Lashbrook A (2011) 'Achieving Efficiency: Lessons from Four Top-Performing Hospitals', *Health Management Associates: Commonwealth Fund*.



- Hurst J, and Williams S (2012) 'Can NHS Hospitals do more with less?', www.nuffieldtrust.org.uk/publications



- American College of Healthcare Executives, 'Top Issues Confronting Hospitals: 2013', <http://www.ache.org/pubs/research/ceoissues.cfm>



- McRae I, Bigg I, Stackhouse E, Boxall A, and Broadhead P (2009) 'The Australian Healthcare System: The potential for efficiency gains', *National Health and Hospitals Reform Commission*.

The End