



Medical Tourism Project Kingdom of Bahrain

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EPOS Health Management

- EPOS is one of the largest healthcare consulting and management companies in Europe operating at international level
- Currently more than 70 ongoing projects in 50 countries
- Specialized in hospital projects worldwide (among other areas)
- Portfolio of Clients ranging from International Financing Institutions (IFIs) to private clients
- In Cyprus, EPOS is represented by «Quale Vita Healthcare Consulting Ltd»

Project idea

- Unique product for the GCC region
- Exploit market opportunities
- Attract Medical Tourists from the region
- Solid links between Project Developer and Investor(s)
- Experienced European Healthcare and Hospital consultants and management (EPOS)
- Interest in finding partners (financiers, project developers) for replicating the project in other countries and regions

Topics covered

- Scope and Deliverables of the Study
- Market Analysis
- Hospital Beds requirements (Supply, Demand, Share for the project)
 - Worst-case; Best-case and Intermediate scenarios
- Healthcare Analysis
- Recommendations
 - General
 - Clinical Services
- Development of Functional and Space Program
- Operational Management
 - Option 1
 - Option 2
- Phasing of the project

Outputs

- Health and epidemiological needs in Bahrain and region
- Market Analysis, covering:
 - Healthcare services currently offered
 - Competitor Analysis
 - Hospital Charges/costs Information
- Legal & Organisational aspects
- Recommendation for Scope of Services (“Functional Program”)
- Options for operations and management

Market Analysis

- Strong Economic Outlook
 - Governance
 - Bahrain Economic Vision
 - Socio-economic Indicators
 - Health – a major priority
 - Tourism increasing
- Healthcare Insurance
 - Major driver for private providers
 - Pressure for achieving healthcare cost efficiencies
- Market Analysis –Healthcare Summary (in following slides..)
- Hospital Beds – Supply, Demand & project share (in following slides..)
- Challenges for Private Providers (in following slides..)

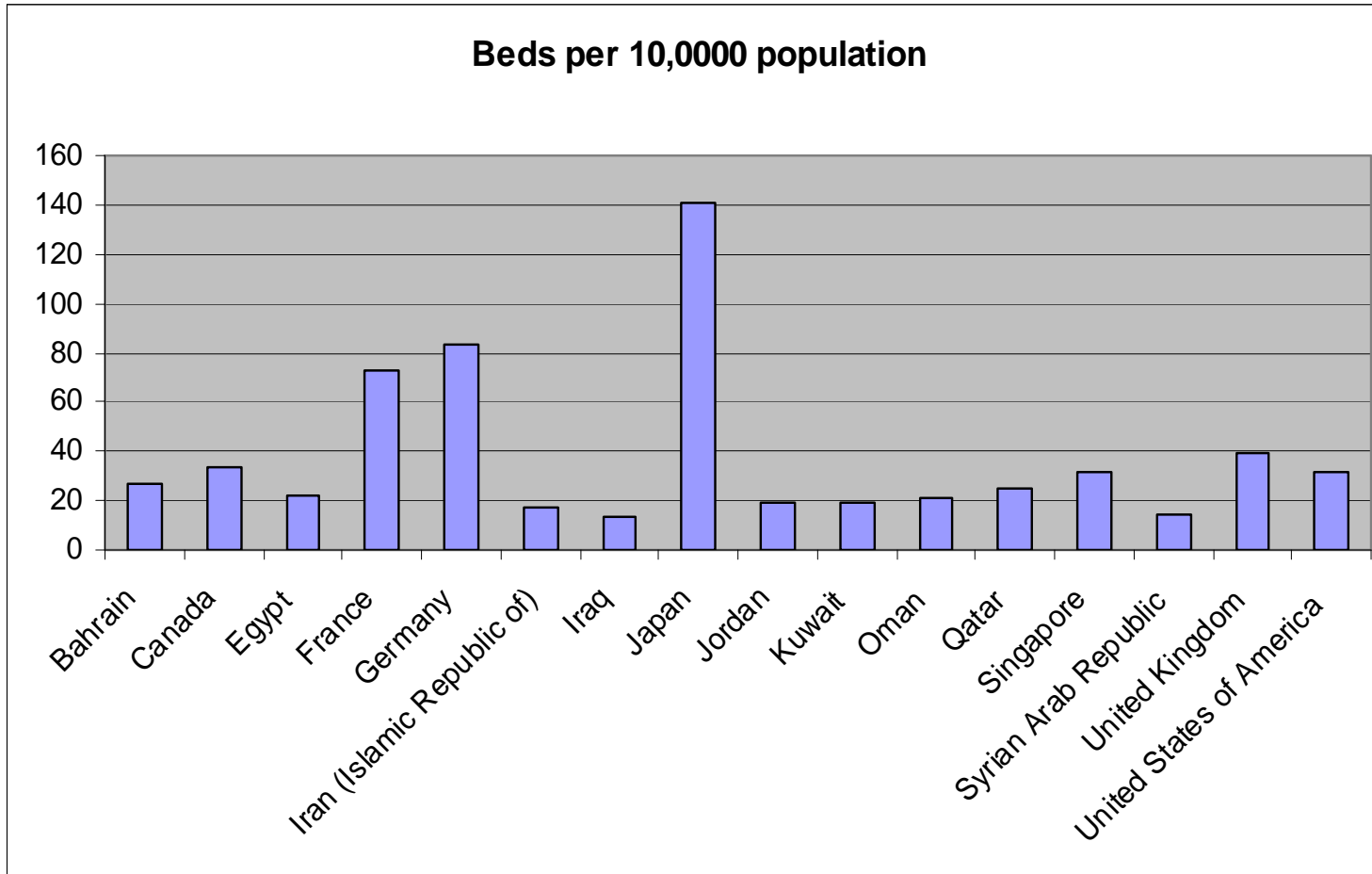
Market Analysis – Healthcare Summary

- Total population of 1.2 million and life expectancy of 74.8yrs.
- Difference in healthcare expenditure between Bahraini and No-Bahraini population
- In GCC, KSA, UAE, Oman & Kuwait have sequentially high number of beds
- Bahrain Public Sector has 22 health centres and 9 hospitals with 1714 beds (84%)
- Private sector has (currently at least) 13 hospitals with approx 329 beds (16%)
- In 2006, there were 27 beds per 10,000 population; currently estimated are 21 beds per 10,000 population, against 41 OECD average.

Market Analysis – Healthcare Summary

- Main private hospitals
 - Bahrain Specialist Hospital,
 - American Mission Hospital,
 - International Hospital of Bahrain and
 - Ibn Al Nafees.
- Healthcare costs are lower for private sector (efficiency) compared to public sector costs.
- Healthcare charges for patients are higher in the private sector
- Quality of services is higher in private sector
- Compared to other countries in GCC, the healthcare charges and salaries are lower in Bahrain.
- Nurses are better paid in the public sector
- Private Health Insurance forms a major target for patient load (up to 25-50% of revenue generated for some Bahraini private hospitals)

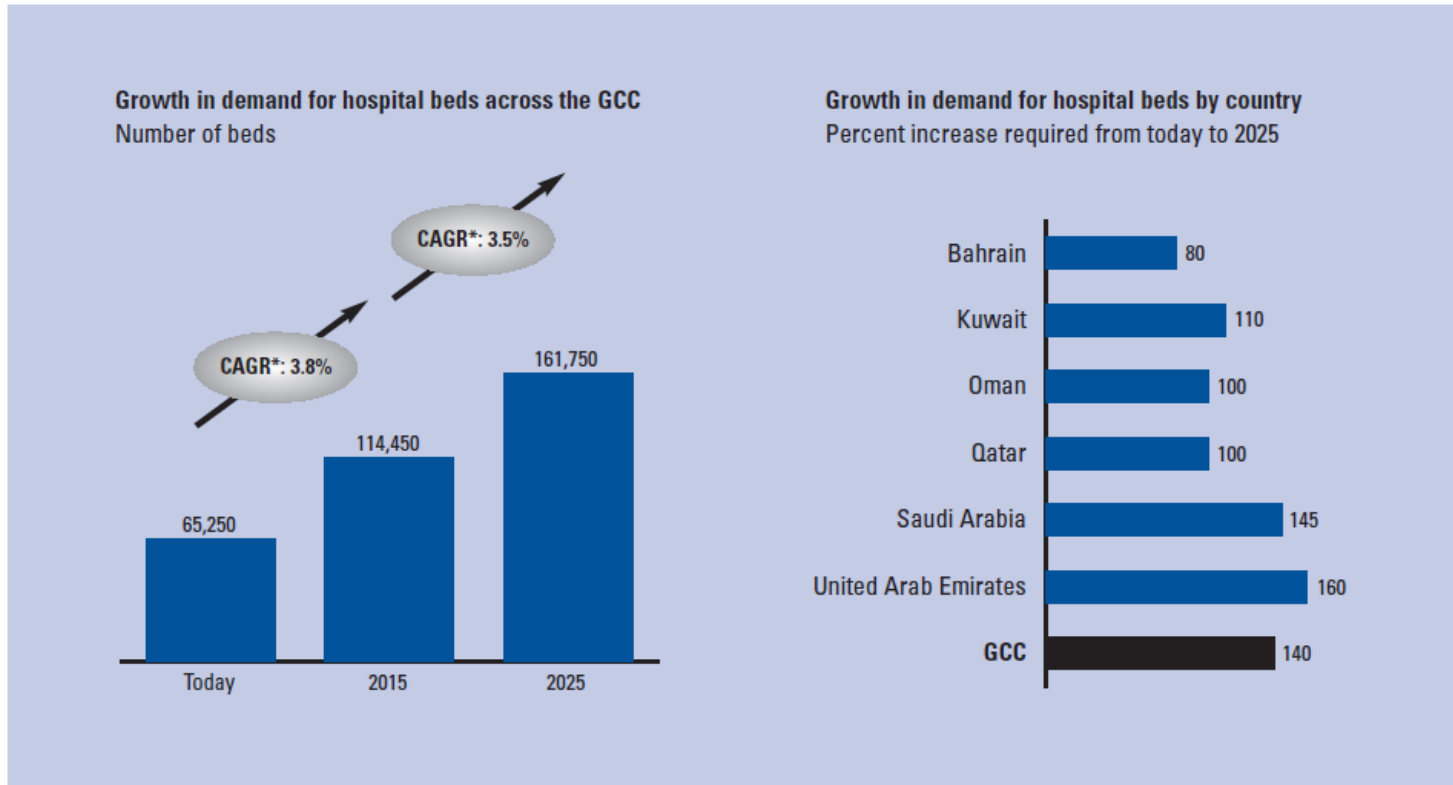
Hospital Beds - Supply



Source: UN- Data Report

Hospital Beds - Demand

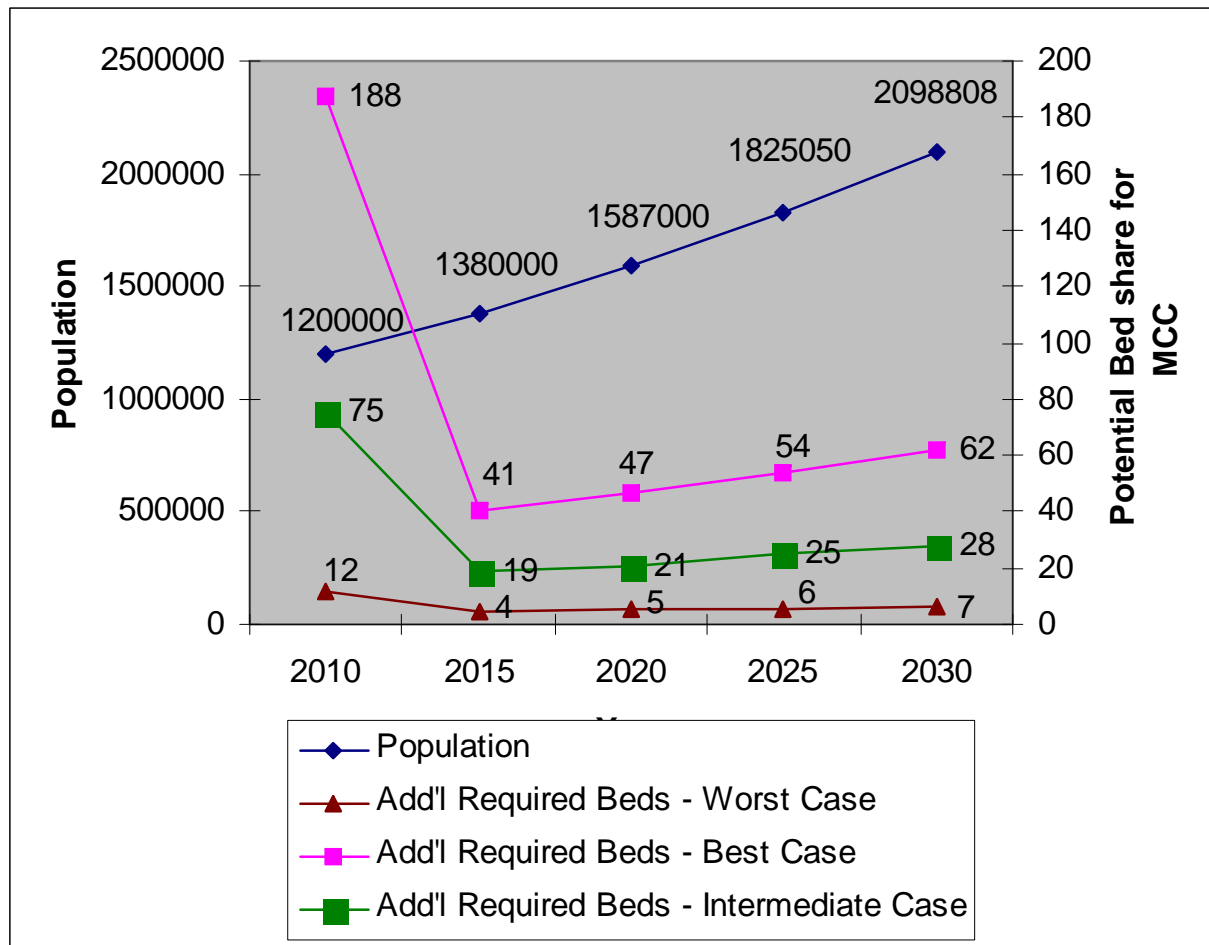
Projected Demand for Hospitals Bed in GCC by 2025



Source: McKinsey & Company.

* CAGR is compound annual growth rate.

Hospital Beds – Potential Share for the project



Healthcare Analysis

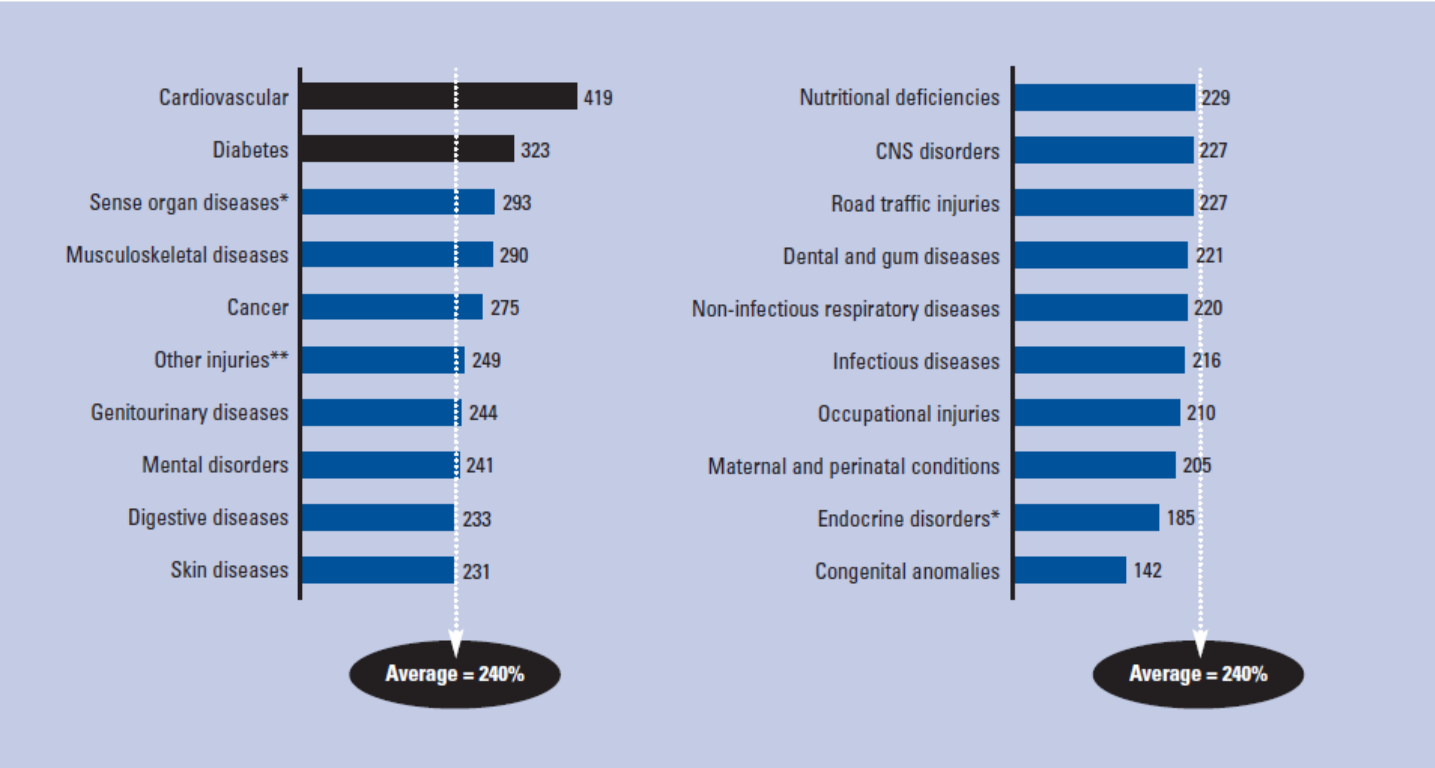
- Future trends in GCC:
 - increasing population;
 - increasing aging population; and
 - increasing health-risk factors
- GCC faces rapid increase in Heart Diseases, Diabetes and Cancer – highest in world
- Therefore:
 - Increase in treatment demand
 - Increasing demand for hospital beds
 - Increase in healthcare expenditure
 - Increase in patient expectations
- Need for GCC governments to support private healthcare providers to cover the increased demands in healthcare.

Healthcare Analysis

- In Bahrain, nearly 50% of healthcare workers are expatriates
- There is both inflow and outflow of patients in the GCC region for healthcare needs. It is crucial
 - to target patients who go out of Bahrain by providing those services
 - to provide services which are already in demand for which supply is low
- There is an evident epidemiological need for following services:
 - Haematology for Hereditary Anaemia
 - Cardiology & Cardiac Surgery
 - Endocrinology, Diabetes & Obesity
 - Oncology services
 - Orthopaedics, Trauma, Plastic Surgery
 - Rehabilitation & Physiotherapy
 - ICU services, Pulmonology, Immunology & Allergy
 - Nephrology & Urology
 - Endoscopy & Laparoscopic Surgeries
- Project Increase in Treatment Demand in GCC by 2025 (next slide..)

Healthcare Analysis

Projected Increase in Treatment Demand in GCC by 2025



Source: McKinsey & Company.

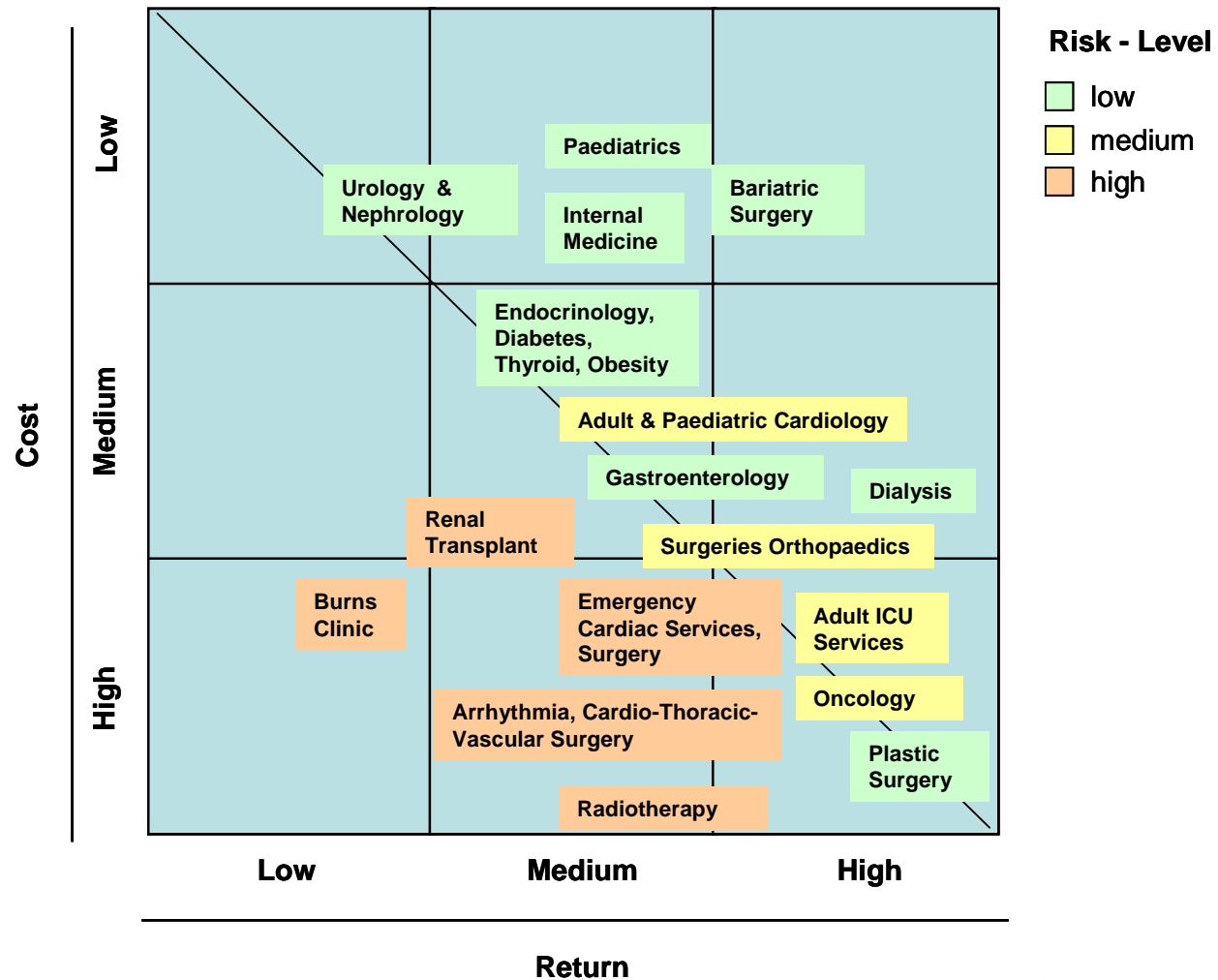
*Primarily eye

**Primarily household; not occupational or road traffic

Recommendation - General

- Range 60-80 beds in Phase 1
- Main Target population
 - Non-Bahraini Medical Tourists
 - 'White Collar' Bahraini
- Close collaboration with Private Health Insurance companies
- Strong management capacity for efficiency, quality services & price competitiveness
- 'One-stop-shop' concept
- Seek advantage from outsourcing, contracting & phasing
- Serviced Apartments shall be of two to three categories
- Retail services to include health & wellness related services
- Integration of above recommendation in both suggested Options for Operational Management

Recommendation - Clinical Services



Recommendation – Functional Program

- DIAGNOSTIC CENTRE
- ORTHOPAEDICS & REHABILITATION CENTRE
- CLINICAL SPA & WELLNESS CENTRE
- COSMETIC DERMATOLOGY & PLASTIC SURGERY CENTRE
- ENDOCRINOLOGY & OBESITY CENTRE

- Core Hospitals Services
- Wards
- Day Care Centre
- Administration (with Training facilities) & Support Services

Operations Management of the project

- **Option 1: Lead Hospital Operator Management Model**

Lead Hospital Operator running (at least) one of the focus-area specialty, managing the core clinical services and the integration of all the other focus areas, clinics and non-clinical areas of the MCC.

The Lead Operator will develop and implement policies and SOP's as required to maintain the healthcare quality standards and will also represent the reference for the other focus areas and clinics (tenants). It may directly operate or instead outsource specific services like housekeeping & laundry, restaurant, engineering, general waste and other support services to achieve better efficiencies.

Operations Management of the project

- **Option 2: Multiple Operators Management Model**

Multiple Focus Areas and Clinic Operators running and managing their own specialties including their respective core clinical services, with an integrated approach only for non-clinical services.

Multiple clinic operators will manage and run their own clinics; however the support services (non clinical) will be shared amongst all: Surgery clinic with OT, CSSD and Labs. Each operator will be individually responsible for setting its own quality and service standards.

Development of Space Program

■ Option 1 (with sqm.)

| | |
|--|---------------|
| Medical areas (incl. Admin & Support Services) | 12,410 |
| Serviced Apartments | 7,700 |
| Retail | 2,775 |
| Future Expansion | 5,180 |
| Total | 28,065 |

■ Option 2 (with sqm.)

| | |
|--|---------------|
| Medical areas (incl. Admin & Support Services) | 11,730 |
| Serviced Apartments | 8,260 |
| Retail | 2,515 |
| Future Expansion | 5,040 |
| Total | 27,545 |

Option 1 & 2 - overview

Option 1 (with sqm.)

| | |
|---|-------------|
| Core Hospital Services | 2840 |
| Wards | 1775 |
| Day Care Centre | 290 |
| Diagnostic Centre | 1125 |
| Orthopaedic & Rehabilitation Centre | 675 |
| Clinical Spa & Wellness Centre | 750 |
| Endocrinology & Obesity Centre | 500 |
| Cosmetic Dermatology & Plastic Surgery Centre | 400 |
| Other Multi-specialty Clinics | 1040 |
| Total | 9395 |
| Support Services | 1365 |
| Support Services | 300 |
| Administration | 1350 |
| Total | 3015 |

Option 2 (with sqm.)

| | |
|---|-------------|
| Core Hospital Services | 2715 |
| Wards | 2250 |
| Day Care Centre | 290 |
| Diagnostic Centre | 1125 |
| Orthopaedic & Rehabilitation Centre | 675 |
| Clinical Spa & Wellness Centre | 750 |
| Endocrinology & Obesity Centre | 500 |
| Cosmetic Dermatology & Plastic Surgery Centre | 400 |
| Other Multi-specialty Clinics | 1040 |
| Total | 9745 |
| Support Services | 300 |
| Support Services | 300 |
| Administration | 1385 |
| Total | 1985 |

Option 1 - Lead Hospital Operator Management Model

| OPTION I | |
|--|--|
| Strengths | Weaknesses |
| Efficient use of resources | Loss of key staff (high effect) |
| Highly attractive for single clinics to enter as tenants to use shared services (i.e. diagnostics) | Lack of hospital management skills |
| Allows for standardized services based on quality management systems (processes, clinical outcomes, patient satisfaction) | Higher amount of administrative workload |
| Implement, sustain and maintain uniform IT-HIS Systems included | Difficulties of selecting business-oriented doctors and integrate them with the single operating model |
| Opportunity to outsource services and still achieve the advantages of option II by implementing a model of "centers of excellence" | |
| Monitoring all costs and processes | |
| Single License hospital requirements | |
| High economies of scale (single core hospital services) | |
| Available to cross-finance rare and less cost efficient services but contributing to the overall reputation | |
| Opportunities | Threats |
| Competitive advantage in terms of market reputation | Lack of wide experiences |
| Opportunity to maintain and strengthen integrated company philosophies and values | Limited lessons learnt available from similar projects (to be verified during full FS) |
| More likely chances of international collaboration (twinning hospitals, implementation of tele-medicine components and visiting doctors) | High political influences |

Option 2 - Multiple Operators Management Model

| OPTION II | |
|---|--|
| Strengths | Weaknesses |
| Low amount of administrative capabilities and workload | Provision of rare and less cost-efficient services less likely |
| Centres of excellence model | Difficult to implement and sustain quality management system and standards |
| Business oriented doctors get selected resulting in financial feasibility and volumes | No economies of scale (multiple core hospital services) |
| | Regulatory efforts for licensing (multiple licenses required) |
| Opportunities | Threats |
| Reputation of single doctors as a higher marketing impact | Lack of wide experiences |
| | Limited lessons learnt available from similar projects (to be verified during full FS) |
| | Selection of business oriented personnel (doctors and managers) |
| | Less likely chances of international collaboration (twinning hospitals, implementation of tele-medicine components and visiting doctors) |

Phasing of the project

- Currently the market is still conservative
 - Recent growth in private providers
 - Recent growth in health insurance
 - However...the assumptions made are also conservative!
- Expected considerable growth in future mainly on health insurance
- Time period required to see growth in cardiology and cancer services in private sector
- Phase 2 provides flexible possibilities for adaptations to changing market conditions
- Phase 2 offers also possibility of expansion (Serviced Apartments and/or medical areas)

Fazit

The **project** (medical areas, serviced apartments and retail area) represents a **unique** concept that is **plausible** from a healthcare as well as a market perspective.

Potential for **high returns** is realistic if quality and efficiency are achieved through **an appropriate management model** and **phasing** is considered.

Thank you!