



STRATEGIC EDGE

MANAGEMENT CONSULTANTS

Study

**OF POTENTIAL MARKETING
OPPORTUNITIES**

IN HEALTHCARE SERVICES

IN THE KINGDOM OF SAUDI ARABIA

Final Report

June 2008

4- Healthcare in the Economic Cities

- **Report contents**

- **Executive Summary**

- **First Part:**

- **Diagnostic and therapeutic healthcare units.**

- **Second Part:**

- **Recruitment and hospital management.**

- **Third Part:**

- **Education, training and consultancy.**

- **Fourth Part:**

- **Healthcare in the Economic Cities, generic pharmaceutical and Hospital Design, Construction and Equipment**

7. Healthcare in Economic Cities

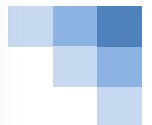
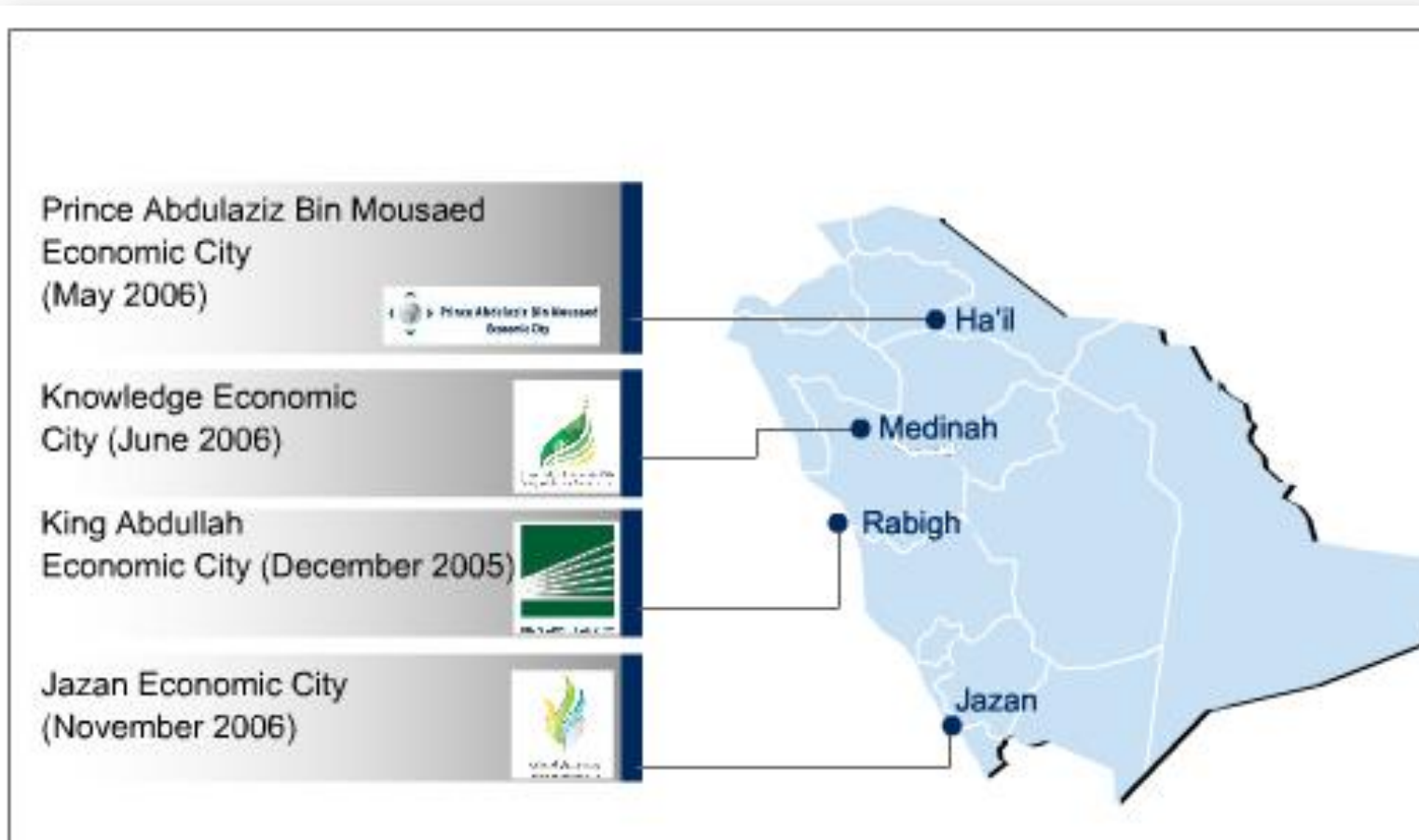
Fourth Part – Healthcare in Economic Cities

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- 1- Current and potential supply
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1- Current and potential supply

Economic Cities in the Kingdom of Saudi Arabi



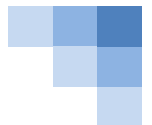
1/1 The aim of Establishing Economic Cities

1- Promote balanced regional development

Through reducing migration to major cities and enhancing economic development in undeveloped areas.

2- Achieve economic diversification

Through the establishment of several industries and competitive new services to achieve worldwide leadership for KSA in these fields.



1/1 The aim of Establishing Economic Cities

3- Generate job opportunities

Since each presented job in the economic cities will provide 5-7 service jobs associated with it.

4- Developing infrastructure, transfer knowledge and upgrade competitiveness

Through attracting international companies in different sectors, and transferring their knowledge to the Saudi private sector, in addition to contributing in supporting national infrastructure networks (airports, ports, roads,....etc).

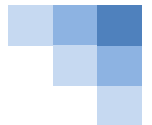
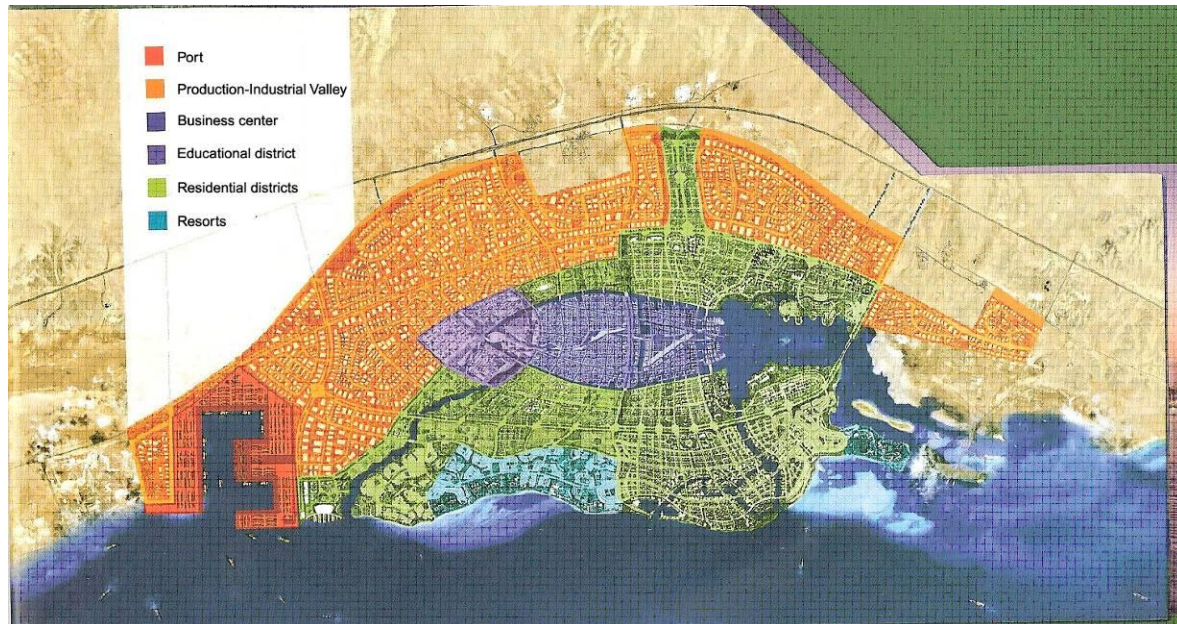
1/2 King Abdullah Economic city

1/2/1 The developing company



- ▶ Emaar company is a Saudi corporate company, which was launched in Sep 2006. Emaar Economic City (EEC) is the lead developer and listed on the Saudi stock exchange market
- ▶ Its registered capital is 8.5 Billion SR, distributed into 850 million shares, and only 30% of them were offered to public subscription.

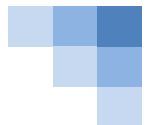
Developer



1/2 King Abdullah Economic City

The Vision

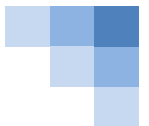
“To create for the Kingdom of Saudi Arabia a new city with potential growth for employment, education, community and lifestyle... a city that will expand the Kingdom of Saudi Arabia with a fully integrated business and residential environment.” (KAEC Master Plan)



1/2 King Abdullah Economic City

The Vision for healthcare in KAEC

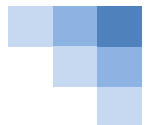
“To be a world model in holistic, patient-centered healthcare delivery, which significantly contributes to the city's value proposition and helps to attract and retain residents.” (KAEC Master plan)



1/2 King Abdullah Economic city

1/2/2 City components

1. International seaport on KSA west coast, with a capacity of 10 million containers annually.
2. Industrial zone covering 63 million square meters to host more than 2500 factories.
3. Central Business District (CBD) covers 3.8 million square meters, consists of several administrative offices and hotels, with a main focus on investment and banking services.
4. Resorts and facilities along a beach extended for 3.5 million meters, consisting of 11 thousand hotel rooms.
5. Residential districts, covering 51 million square meters, containing more than 150 thousand apartments, 22 thousand Villas, and 50 thousand commercial stores.
6. Scientific and research institutes including security guards surrounded by two compounds for research and development, to accommodate 18 thousand students

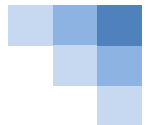


1/2 King Abdullah Economic city

1/2/3 projected Income Demographics of KAEC Residents

Income bracket (000 SR per month)	Percentage of KAEC population	Saudi	Expatriate
< 4	37%	25%	75%
4 – 8	45%	60%	40%
8– 12	8%	60%	40%
12 – 16	3%	90%	10%
>16	7%	90%	10%

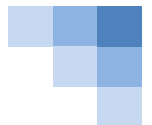
The demographic split of the population is expected to be 70% Saudis and 30% expatriate



1/2 King Abdullah Economic city

1/2/4 City achievements:

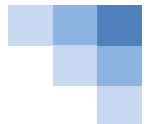
- Establishing initial roads inside the city with a total of 15 kilometers.
- Start establishing the road between the main gate and “Al-Bilsan Village” with Bin Laden Group with a total value of 129 million SR.
- Constructing the first group of residential units with Bin Laden Group, at the value of 357 million SR.
- Implementation of residential units (4 towers / 616 apartments) with “Saudi Augieh Company” at the value of 494 million SR.
- Implementation of resort villas and the cities main gate, with “The World Center for Trade and Contracting” at the value of 250 million SR.
- Implementation of water channels excavation and construction works with “Saudi Hota Group” at the value of 250 million SR.
- Establishment of administrative offices in The Business Center and SAGIA building in “King Abdullah Economic City” with “Freseneh company” at the value of 348 million SR.



1/2 King Abdullah Economic city

1/2/5 City achievements:

- ▶ Establishing a mosque, administrative building, utilities, and an employees housing compound in the industrial zone at the value of 106 million SR with “El-Saad Foundation”.
- ▶ Start the construction process of 3 main entrances to the city, connecting it with the highway (Jeddah – Madinah highway) with “Mokbel Al-Saeedy company”.
- ▶ Start constructing 660 villas with several construction companies.
- ▶ Execution of construction works for 8 residential towers with “Al-Qathmy company”, at the value of 199 million SR.
- ▶ Execution of infrastructure works in the industrial zone with “SEMCO company” at the value of 129 million SR.
- ▶ Construction of the first trade center with “Rafeeq Kredba Company” at the value of 23 million SR.
- ▶ Establishing the north-south coastal road and related infrastructure with a total of 13km at the value of 238 million SR.



1/2 King Abdullah Economic city

1/2/6 Selling and Rental

Industrial zone:

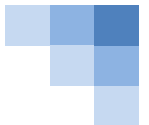
- ▶ Over 900 thousand square meters has been leased to industrial investors who intend on pumping investments estimated at 850 million SR
- ▶ The industrial lands and complementary services will be handed over starting from the fourth quarter of 2008.

Residential area (Al-Bilsan)

- ▶ Selling the residential units of the first phase of Bislan integrated village has started already, and it will be handed over by the end of 2008

Services area:

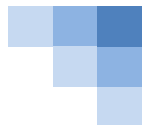
- ▶ There was a signed contract with Dr. Abdulrahman Bakhsh hospitals to establish an integrated hospital which will cover 8352 square meters, including a residential building for physicians and employees working in the hospital.



1/2 King Abdullah Economic City

1/2/7 Healthcare areas in KAEC:

- According to the master plan of KAEC, there are designated healthcare areas in KAEC.
 - “Bay La Sun”: the first residential district being developed in KAEC.
- The other specified healthcare area in KAEC is in a district 3 km east of Bay La Sun.
 - This area will be a prime location in phase 2, connecting the educational area in the north-east with the residential area in the south-west and the financial district in the south-east with the resort area in the north-west.
- The remaining healthcare areas are either more suitable for healthcare provision for the low-income group or will be developed in later phases of the city.

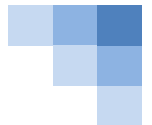


1/3 Jazan Economic city

1/3/1 Project Location



- ▶ Jazan Economic city is 60 km from the city of Jazan, along the Red Sea
- ▶ This city is constructed on a total area of 103 square kilometers along the coastline of 11.5 km.
- ▶ The nearest city is “Bish city”, which is only 23km away.



1/3 Jazan Economic city

1/3/2 Project components



Master Developers:

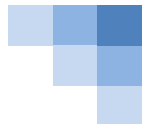


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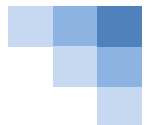
MMC International Holdings Limited
Level 10, Kompleks Antarabangsa
Jalan Sultan Ismail
50260 Kuala Lumpur, Malaysia
tel 603 2142 4777 fax 603 2144 0887
www.mmc.com.my

- ▶ Residential area
- ▶ Heavy industries area such as
 - Silicon
 - Biological technology
 - Aluminum
 - Agriculture technology
- ▶ Secondary industries area
 - Textile industry
 - Minerals formation
 - Pharmaceutical
 - Building materials
- ▶ Human resources area, which includes
 - Residential and commercial city
 - Exhibition and meeting rooms
 - Business suburban
 - Sports services area
 - Educational area
- ▶ Services area, consists of
 - Seaport
 - Refinery
 - Power station
 - Health care services
 - Ship constructing area



1/3 Jazan Economic city

1/3/3 Healthcare services location



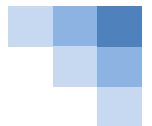
1/4 Knowledge Economic City

1/4/1 Project Purposes:



Knowledge Economic City
King Abdullah Foundation

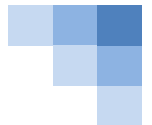
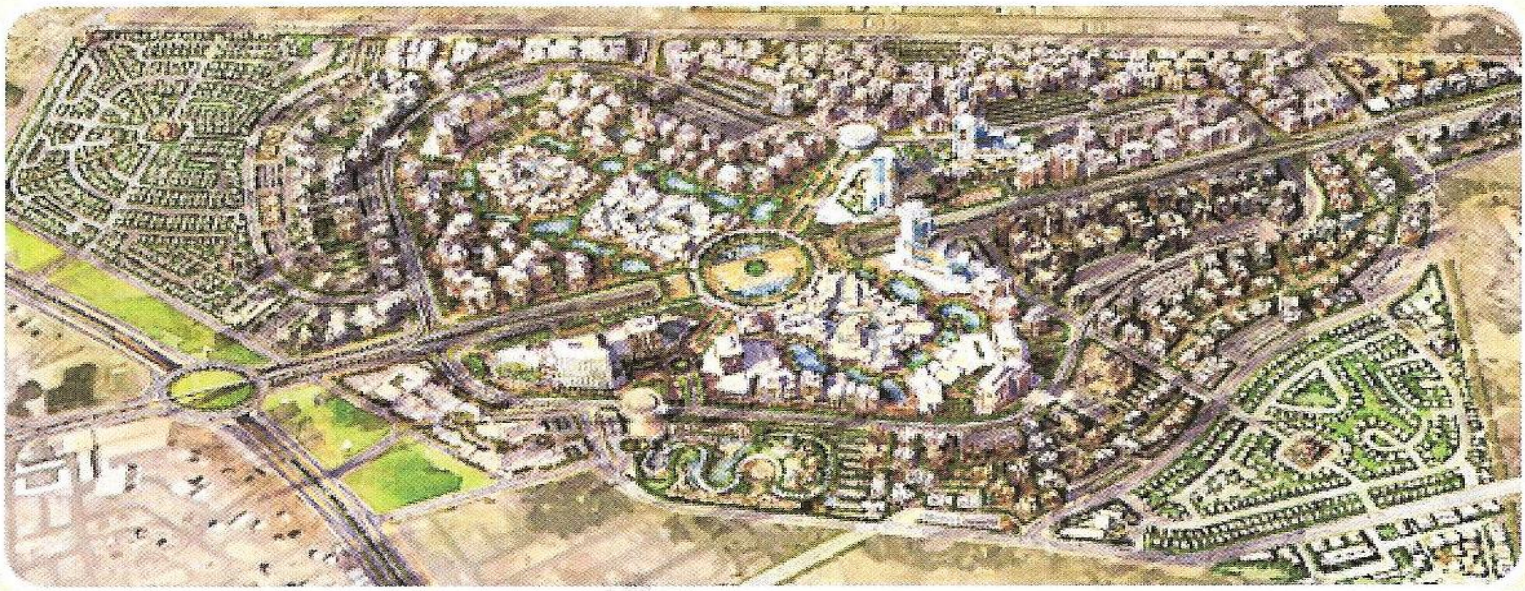
- ▶ Establish a base for economic development, based on knowledge industries.
- ▶ Support marketing and tourism for the city through “Al-Sira Museum” and the commercial zone, in addition to touristy buildings.
- ▶ Establish a commercial zone with modern infrastructure to serve city residents and visitors, and reduce pressure on the central area.
- ▶ Develop a special residential area for people willing to work and invest beside The Profit (PBUH) Holy Mosque



1/4 Knowledge Economic City

1/4/2 Project location

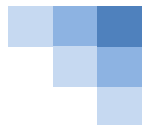
- ▶ Knowledge Economic city is only a few minutes away from the Profit (PBUH) Holy Mosque, on King Abdul-Aziz road, after the second ring road.
- ▶ It could be reached through an advanced transportation system, which includes an international airport, highways and railways.



1/4 Knowledge Economic City

1/4/3 City components (services and activities):

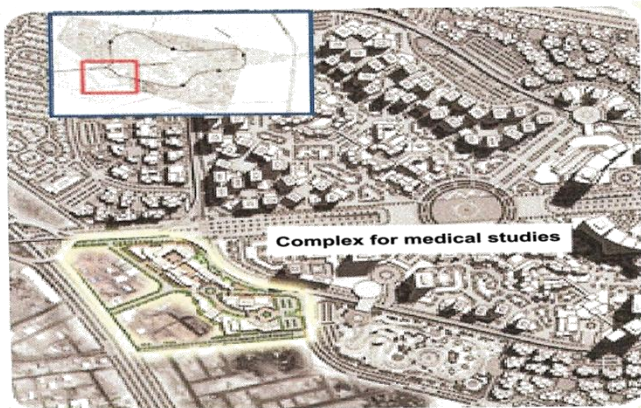
- ▶ Taiba Complex for Technology and Knowledge-based Economy
- ▶ Managerial and technical facilities
- ▶ “Al-Sira Land” park
- ▶ Islamic civilization studies center
- ▶ A complex for medical studies, health services and biosciences
- ▶ Integrated business center
- ▶ Residential areas include villas, groves, and hotel apartments
- ▶ Railways / highways stations for passengers
- ▶ Commercial complexes providing modern marketing services
- ▶ King Abdul-Aziz Mosque



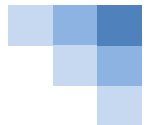
1/4 Knowledge Economic City

1/4/4 Complex for medical studies, health services and biosciences

- ▶ A specialized medical compound will be established to provide medical services to Madina residents and visitors. The compound will cover 85 thousand square meters, integrating with the services provided by the project components.
- ▶ Everyone will be able to benefit from the Technology Garden, especially in telecommunication services, which enable users to provide remote medical services and remote training services.
- ▶ The medical compound can also sign cooperation agreements with advanced healthcare centers in the Islamic region to enhance their services.
- ▶ The compound location inside the Knowledge Economic City enables inpatients to enjoy its tranquility and spirituality climate, which is exclusively in Madina, which may help them to speed recovery and have physical and spiritual recreation.
- ▶ Concerning the biosciences complex, it will focus on the specifics of Madina, such as:



- Developing the vaccines for prevalent diseases in KSA.
- Biological remedies for the effects of remnant and water treatment on the environment and healthcare in KSA.
- Palm gene engineering to improve production and quality.
- Laboratories for the accreditation of Halal food.



1/5 focus areas of each Economic City



Ha'il Economic city

- Transportation services
- Education services
- Agriculture services
- Industrial services
- Entertainment services
- Housing

Knowledge Economic city

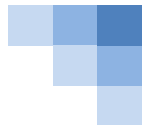
- Knowledge based industries
- Tourism and services

Jazan Economic city

Develop social, economic, industrial and agricultural activities

King Abdullah Economic city

- Ports, Transportation & Supply
- Small industries and services

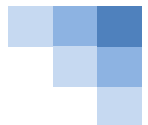


2- Current and potential demand

Economic Cities and Job Opportunities

Comparison aspects	King Abdullah Economic city	Jazan Economic city	Knowledge Economic city	Ha'il Economic city	Total
Surface Area	168 Million m ²	103 m ²	m ² 4.8Million	156 Million m ²	431.8 Million m ²
Expected Amount of investment	27Billion \$	5 Billion \$	7 Billion \$	8 Billion \$	47 Billion \$
Job Vacancies	1 Million Vacancies	500 Thousand Vacancies	20 Thousand Vacancies	30 Thousand Vacancies	1.55 million Vacancies
Population	2 Million People	250 Thousand People	150 Thousand People	140 Thousand People	2540 Thousand People

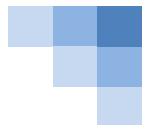
Source: The Saudi Arabian General Investment Authority (SAGIA)



2/1 Estimating Total Economic Cities' Needs of Hospital Beds

- ▶ Planned hospitals in the Economic Cities are expected to serve 3 segments as follows:

Residents:	Estimated at 2.54 million people
Labor:	Estimated at 1.55 million people
Residents in surrounding cities:	Estimated at 1.01 million people
<hr/>	
Total:	5.1 million people



2/1 Estimating Total Economic City's Need of Beds

- ▶ It is estimated that 15,300 beds will be needed in the coming years (3 beds per 1000 population).

Economic Cities	Expected Population (in Thousands)	Expected Employees (In Thousands)	Residents nearby (in Thousands)	Total (in Thousands)	Estimating Volume of beds
King Abdullah Economic city	2000	1000	750	3550	11250
Jazan Economic city	250	500	180	930	2590
Knowledge Economic city	150	20	40	210	630
Ha'il Economic city	140	30	40	210	630
Total	2540	1550	1020	5100	15300

Source: - The Saudi Arabian General Investment Authority (SAGIA)

- Central Department of Statistics and Information

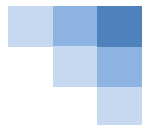
- Estimations of the research team work



2/2 Expected Time Schedule of Economic Cities' Needs for Beds

Economic cities	First Phase (3 Years till 1433H) 15%	Second Phase (4 – 7 Years) 35%	Third Phase (8 – 12 Years) 50 %	Total 100%
King Abdullah Economic city	1690	3940	5620	11250
Jazan Economic city	390	900	1300	2590
Knowledge Economic city	100	220	300	630
Ha'il Economic city	100	220	300	630
Total	2280	5280	7540	15300

Source: Estimations of the research team work



2/3 Estimating Needs of Economic Cities For Other Medical Services

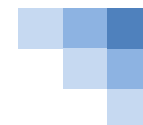
Health Care Units	Rates per 100 Thousand People	King Abdullah Economic city	Jazan Economic city	Knowledge Economic city	Ha'il Economic city	Total
Health Centers	10.5	393	98	22	22	535
Dispensary	5.7	214	53	12	12	291
Laboratories and radiology centers	0.5	19	5	1	1	26
External clinics	7.3	274	68	15	15	372
Dental Clinics	0.5	19	5	1	1	26
Physiotherapy centers	0.3	11	3	1	1	16
Pharmacies	25.9	971	241	54	54	1320
Optics	8.6	323	80	18	18	439

Source:- Ministry of Health

- Estimations of the research team work

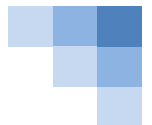
That it should be done as the following schedule :

- Phase 1: during 3 years from now (till 1433 H), represents 15%.
- Phase 2: during 4-7 Years (till 1437), which represents 35%.
- Phase 3: during 8-12 years (till 1442 H), which represents 50%.



3. Potential Marketing Opportunities for Hospitals and Healthcare facilities in Economic Cities

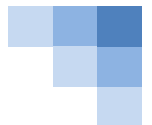
- ▶ There are four new economic cities that have recently been developed and are under construction in Saudi Arabia. These four cities represent a civilization and developmental shift for the Kingdom of Saudi Arabia within the coming 10 years.
- ▶ The cities' area is estimated at about 431.7 million m² , with total investments reaching 47 billion \$ and a capacity of 2.5 million people by 1440H, offering 1550 employment opportunities
- ▶ Residents of these cities, labor, and other residents will need 15.3 thousand beds over the developmental period (10 years from now), in addition to 3 thousand healthcare units (health centers, clinics, radiology and medical laboratories, emergency centers,etc).



3. Potential Marketing Opportunities for Hospitals and Healthcare facilities in Economic Cities

- ▶ Focusing on medical specializations in hospitals, which will be established in Economic Cities due to the increasing demand on them:
 - 1- Family diseases (Gynecology and obstetric)
 - 2- Critical diseases (Cardiac, neurology and cardiology)
 - 3- Orthopedics
 - 4- Malignant tumors
 - 5- One-day surgery
 - 6- Affluence Diseases

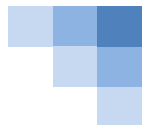
- ▶ Depending on the high inpatient percentage visiting private and governmental hospitals in KSA on one hand, and those who travel abroad for medical treatment on the other hand.



3. Potential Marketing Opportunities for Hospitals and Health care facilities in Economic Cities

- ▶ Focusing more on establishing diagnostic centers, for radiology and medical analysis, in each Economic City, due to the increasing number of review cases in hospitals for medical check purposes.
- ▶ For example, average visits to radiology centers and medical laboratories in the Ministry of Health was:

- 75.3 million laboratory test cases
- 6.5 million case for radiation imaging
- 1 million physiotherapy cases



3/1 Economic Cities Healthcare Services

These hospitals and healthcare facilities are to be established in 3 phases in accordance with the operation stages of the economic cities, as follows:

First Stage:

Within 3 years starting now (1433 AH) at the rate of 15%

Second Stage

Within 4-7 years (1437 AH) at the rate of 35%

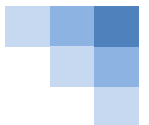
Third Stage:

Within 8-12 years (1442 AH) at the rate of 50%



3/2 The benefit from early entrance

- The leading Healthcare Provider of Economic cities will be able to enjoy;
 - Brand Exclusivity.
 - The opportunity to provide healthcare in such a large and affluent country.
 - The ability to close in on the deficit of healthcare in Saudi Arabia.
 - A commercially ideal locations.
 - The opportunity to shape the healthcare system in the four cities, and Saudi Arabia.
 - A healthcare system facilitated by the Saudi Arabian General Investment Authority (SAGIA).



3/3 Economic Cities Healthcare Services opportunities

Level of Competition

High



Capital Required

High



Technology Accessibility

Medium



Human Resources Availability

Medium



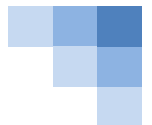
4. Market size

- It is estimated that the market size will be at SR 16.7 billion in the end of the project phases, growing at a rate of 10% a year

5. Potential Marketing Share

To guarantee success for these hospitals, we suggest:

- ▶ Usage of foreign bodies such as famous medical faculties, institutes, or hospitals (in Germany, Britain, or United States) to manage these hospitals and promote them locally and internationally.
- ▶ A hospital's beds must not exceed 250 beds
- ▶ Provide services with suitable prices
- ▶ Targeting customers from both A & B classes



5. Potential market share

- It is suggested to build four hospitals (general and specialized) with a capacity of 250 beds each. This can gain a market share of 7%, growing in a rate of 10% a year

8. Generic Pharmaceutical

7- Generic Pharmaceuticals

Table of Content:

- 1- Current and potential supply
- 2- Current and potential demand
- 3- Current and potential marketing opportunities
- 4- Total Market Size
- 5- Potential Market Share



1. Current and potential supply

Generic pharmaceuticals are drugs sold without a brand name or trademark by different manufacturers at the end of patent protection. generic drugs should have the same molecular structure and the same effect as the original branded drug

- Prescription Generic Pharmaceutical market is highly competitive and requires skilled human resources such as scientists and the ability to access foreign markets
- Generic pharmaceuticals can be sold by doctor prescriptions or over the counter (OTC) depending on its active ingredient
- The main generic prescription rate drug categories are:
 - Infectious and Inflammatory
 - Heart
 - Mental Health
 - Respiratory
 - Diabetes



1/1 Current regulations

- Imported Pharmaceuticals are not subject to high tariffs furthermore increasing their attractiveness versus local production.
- Exporting prescription generic drugs requires that companies acquire necessary registration and licensing rights from destination country that may include factory inspection visits.
- Protection of intellectual property is a must to attract global partners.



1/2 Current price pressure

Most generic drugs enter the market at the end of the patent protection period and compete on prices instead of brand recognition

- Prices drop 35% with the first generic product entering the market; the price furthermore drops to 90% of the original price with the third entrant
- To attain attractive profit margins, manufacturers need to achieve large production volumes
- The local market is dominated by a single buyer (MOH)
- Price is a major competitive factor of generic products

1/3 Current global competition

- Low cost production is increasingly available in China/India . The growth rate of production in South East Asia and China are one of the highest in the world.
- Established regional competitors in Jordan have excess capacity There are 17 Jordanian companies active in the pharmaceutical sector. The sector directly employs more than 4000 Jordanians and provides another 3000 jobs indirectly in related industries .The industry exports 70% of the production and meets 50% of the local demand

2/1 demand factors

The demand is expected to grow due to the a group of factors :

- Government drive to cut healthcare costs through increasing purchase of generic drugs. MOH is the biggest consumer of generic products
- Newly emerged private health insurance companies that encourage their members to use generic instead of branded drugs
- High population growth rate
- The marketing activates executed by generic drugs manufacturers
- Demand for local generic drugs will increase with increase in availability of local drugs, new regulation supporting local industry and increase in public awareness of sector

2/2 Total visitors to healthcare units under Ministry of Health suffering from affluence diseases in 1428/27H

Diseases	Types of healthcare units	Number of visitors (in thousands)	Average annual growth rate
Diabetes mellitus	Hospitals	403.8	
	Emergency	364.3	
	Health centers	1748.5	
	Total	2516.6	4.7%
Hypertension	Hospitals	301.5	
	Emergency	401.6	
	Health centers	1156.9	
	Total	1860	8.7%
Cardiac diseases	Hospitals	273.1	
	Emergency	285.3	
	Health centers	102.4	
	Total	660.8	11%

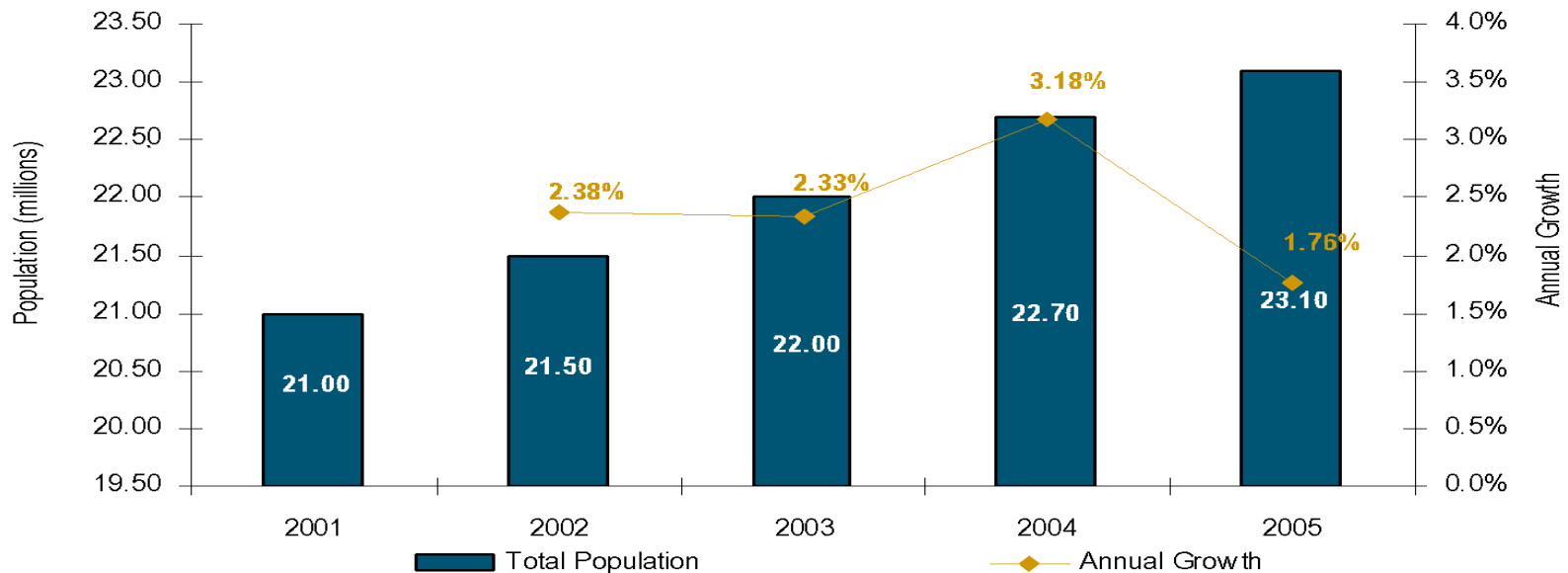
Source: Statistical year book 1427H- Ministry of health



2/3 Population growth in KSA

Saudi Arabia is enjoying a high population growth rate of 2.5%. This will support the increase on demand for drugs and health care in general

KSA, Population Growth 2001-2005



Source: Ministry of Statistics, 2006

3. Current and potential marketing opportunities

- Growth rate of KSA pharmaceuticals is expected to remain high at 15% and decrease gradually in the following ten years to reach 5% annually, meanwhile its projected that for generic pharmaceutical, the growing rate will be at 8% for the coming year.
- Prescription Generic pharmaceutical industry could be profitable if warranted necessary government incentives and ability to export to surrounding countries
- It is project an increase in domestic production to reach 40% local market penetration within the next 10 years resulting in a SR950 MM domestic production

7- Generic Pharmaceuticals opportunities

Level of Competition
High



Capital required
High



Technology Accessibility
High



Human Resources Availability
Medium



4. Market size

Prescription Generic pharmaceutical industry could be profitable if warranted necessary government incentives and ability to export to surrounding countries

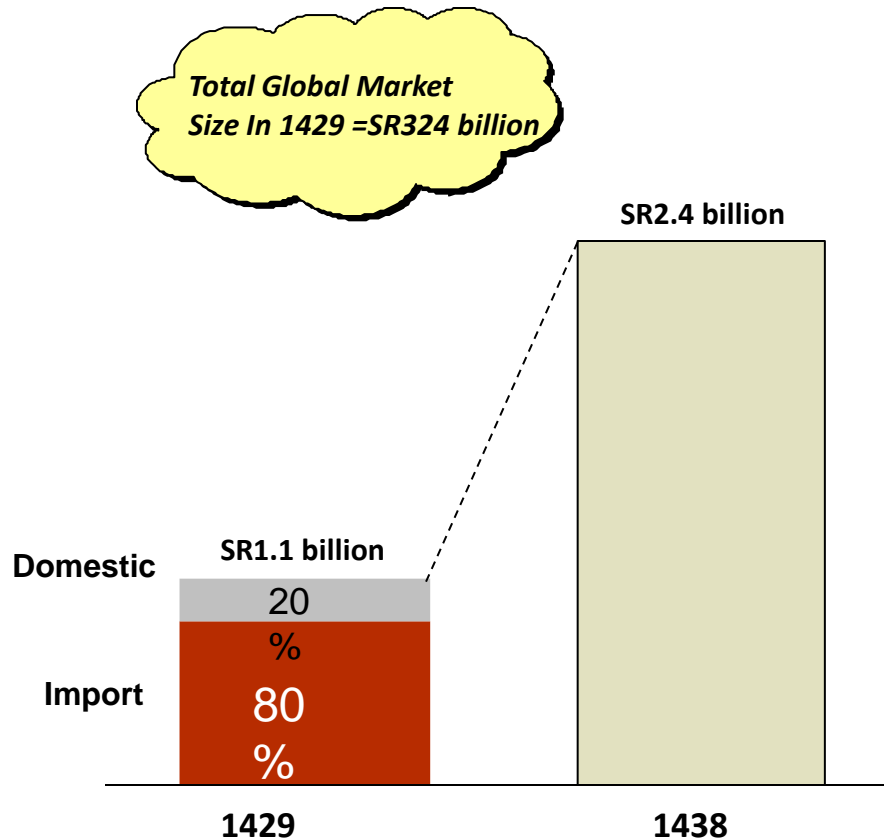
- The market size of the generic pharmaceuticals was estimated at SR 1.1 billion in 1429, with a growth rate of 8%. It is estimated to reach to SR 1.75 billion in 1435.

Year	1430	1431	1432	1433	1434	1435
Market size (SR) billion	1.19	1.28	1.38	1.5	1.61	1.75



4. Market size

Prescription Generic Drugs Current & Potential Market Size in Saudi Arabia (in SR) (1429 – 2038)



Source: Euromonitor, Datamonitor, Industry Interviews

Filename/RPS Number



5. Market share

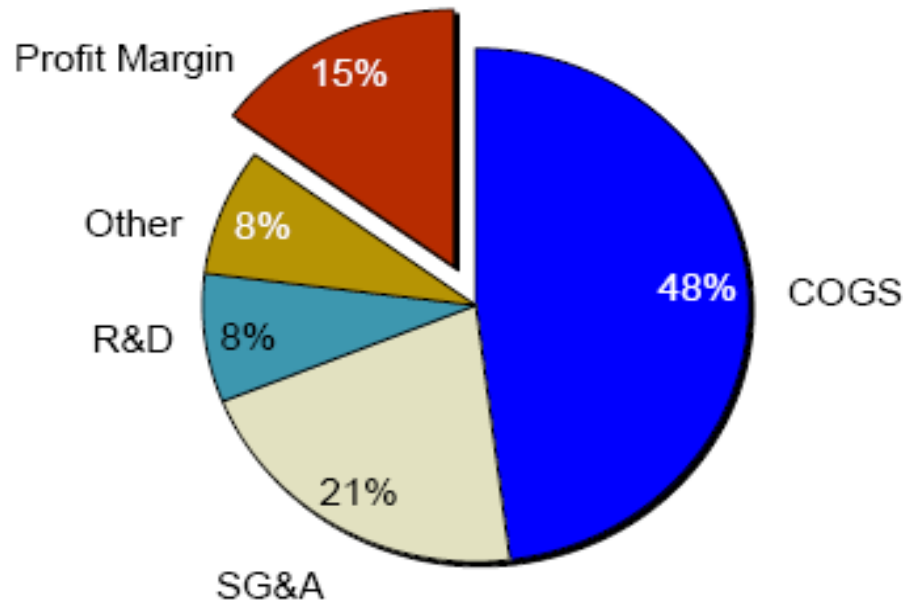
- Capital existing in local market for pharmaceuticals can be supplemented with joint ventures with large international firms and other non-pharmaceutical manufacturers in KSA Pharmaceutical fine chemicals needed for the production of generic drugs must be imported from overseas until local production
 - High level of skilled labor needed in manufacturing technologies and drug formulation Scientist and experts need to be hired to insure the safety of drugs for human use
- Legal expert are needed to obtain necessary licensing
- R&D is required in order to develop new delivery systems and to introduce new products Local production of prescription generics can be manufactured under licensing from global pharmaceutical firms
- to support future growth, establishing of new high education institutes is needed to support this kind of projects with local employees.



5/1 Cost structure of a typical generic pharmaceutical

Prescription Generic Pharmaceutical Capabilities need to be developed with an aim to be a regional leader as high profits are correlated with efficient large scale production capabilities

and ability to be a first entrant
Generic Pharmaceutical Typical Cost Structure



Source: Hoover, Companies Websites, Industry Interviews.



9. Hospital Design, Construction & Equipment

9- Hospital Design, Construction & Equipment

- Design and Planning
 - Adaptability and Flexibility = standardization of planning module (buildings and campus)
 - Integration of technology (now and in the future)
- Operational Impact
 - Evolving medical practice and technologies
 - Healthcare quality – JCI / JACHO
- Design Process
 - Plan beyond tomorrow
 - An expedited design + construction process to soften capital outlay
 - Environmentally Sustainable Design
- Enhancing the Patient and Community Experience
 - Patient- and Family-Centered Design
 - Evidence-Based Design
 - Develop strategies for integrating local traditions into architecture and interior design
 - Planning that accommodates local customs
- PEOPLE
 - Attracting & Retaining staff



9- Hospital Design, Construction & Equipment

Current quantitative gap between supply & demand of beds in KSA (1428H)

Regions	Current population (in thousands)	Beds needed (3 beds/ 1000 people)	Current available number of Beds	Quantitative gap between supply & demand (number of demanded beds)	%
Al-baha	380	1140	1153	13	-
Al-Jouf	380	1140	1028	112	0.7%
Eastern	3519	10557	9601	956	5.8%
Najran	452	1356	1202	154	0.9%
Riyadh	5801	17403	13859	3544	21.4%
Northern boarder	285	855	698	157	0.9%
Al-Qaseem	1070	3210	2451	759	4.6%
Makkah	6039	18117	13131	4986	30%
Medinah	1593	4779	3367	1412	8.5%
Assir	1736	5208	3707	1505	9.1%
Tabouk	737	2211	1550	661	4%
Ha'il	547	1641	963	678	4.1%
Jazan	1236	3708	2018	1690	10.2%
Total	23774	71322	54724	16598	100%

Source: -Ministry of health
-Estimations of the research team work



9- Hospital Design, Construction & Equipment

Number of beds demanded currently and for the upcoming 10 years

Year	Population increase (in thousands)	Number of beds demanded
1427/1428	Current shortage	16600
1428/1429	570.6	1712
1429/1430	584.3	1753
1430/1431	598.3	1795
1431/1432	612.7	1838
1432/1433	627.4	1882
1433/1434	642.4	1927
1434/1435	657.9	1974
1435/1436	673.6	2021
1436/1437	689.8	2069
1437/1438	706.4	2119
Total		35,690

Source: Estimations of the research team work

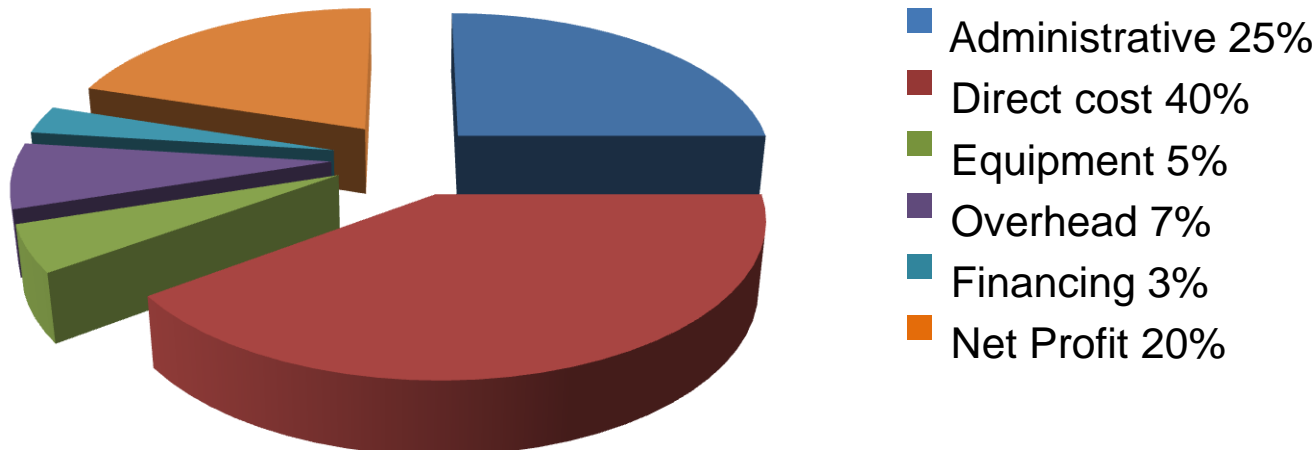


9- Hospital Design, Construction & Equipment

Market size and Market share

Construction cost in the US is approaching US\$2 million/bed. In Saudi Arabia, it will approach US\$1 million/bed within the next 3 years.

- Demand for additional beds:
 - 2008 = 16,600
 - 2018 = 36,000
- Potential SR 135 billion market for the next 10 years.
- Potential market share at 10% of total market is SR 14 billions.



9- Hospital Design, Construction & Equipment

Level of Competition
High



Access to Capital
High



Technology Accessibility
Medium



Human Resources Availability
Medium

