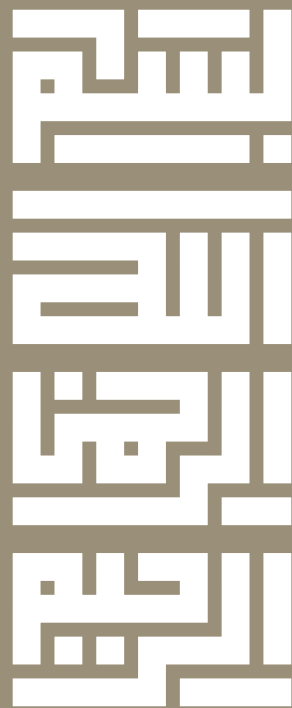




**Elevating care  
for a better future**

KFSHRC  
**2023**  
**ANNUAL  
REPORT**





In The Name of Allah, The Entirely Merciful,  
The Especially Merciful



The Custodian of the Two Holy Mosques

**King Salman bin Abdulaziz Al Saud**

King of the Kingdom of Saudi Arabia





His Royal Highness

**Prince Mohammed bin Salman  
bin Abdulaziz Al Saud**

Crown Prince, Prime Minister of the  
Kingdom of Saudi Arabia



Footprint and  
Facilities  
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Community  
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# 2023 in Review:

## Elevating care for a better future

As the most progressive healthcare provider in Saudi Arabia, KFSHRC is constantly evolving to enhance its broad spectrum of medical services, combining world-class innovation with the industry's most dedicated professionals. The Organization has consistently advanced its delivery of patient experience, from consultation and referral to treatment and discharge, ensuring the journey is both comprehensive and compassionate.



Average Length of Stay  
(ALOS)

**8.80**  
days

(2022: 8.82 days)

Our history of regional and global successes has instilled a drive for excellence and the ambition to become a leader on the global stage of medical invention and discovery. Looking ahead, we have the momentum to escalate the quality of our services across the region and beyond, elevating care for a better future.

# Key Figures at a Glance

## Patient Experience

Likelihood to recommend (LTR) the inpatient practice

# 86.5

(95<sup>th</sup> percentile rank, top box score)

Likelihood to recommend (LTR) the outpatient practice

# 85.78

(56<sup>th</sup> percentile rank, top box score)

## Patients' Access to Care

New patients accepted

# 42,149

(2022: 38,625)

Outpatient visits

# 1,939,507

(2022: 1,748,040)

Inpatient days

# 444,449

(2022: 420,795)

Emergency visits

# 159,425

(2022: 153,205)

Patients seen through virtual clinics

# 185,181

(2022: 90,091)

Medical tourism patients

# 452

(2022: 323)

## Medical Services

Robotic surgeries

# 1,068

(2022: 814)

Solid organ transplants

# 1,092

(2022: 1,016)

CAR T-cell therapies

# 58

(2022: 32)

Bone marrow transplants

# 556

(2022: 537)

Pre-implantation Genetic Diagnosis (PGD)

# 622

(2022: 535)

Genomic and precision medicine procedures

# 4,197

(2022: 2,751)

## Education and Research

Active clinical trials

# 59

Research publications

# 1,012

Medical trainees

# 2,993

# Innovation and Growth<sup>1</sup>

As we continued our strategy of expanding our geographic footprint and increasing market share, KFSHRC developed, upgraded and constructed a range of facilities, and forged a series of new relationships with key local and international partners. With a focus on extending our scope of services across greater catchment areas within the Kingdom, we looked towards the delivery of care in the future and the next-generation benefits of even more medical innovation.



Successfully **implanted brain electrodes** in a child **without major surgery**, using only minimally invasive technique-first of its kind in the Middle East



Performed the world's **first fully robotic liver implantation** with robotic donor hepatectomy



KFSHRC-designed **research experiments in cell sciences** conducted at the **ISS**,<sup>2</sup> part of the first Saudi space mission



Performed a **heart transplant** on the **youngest patient** recorded in the Middle East



Organized first **clinical trials conference** to align national and international efforts; managed **59 active clinical trials** in 2023 alone



Launched **first robot employee**, NourR1, to help elevate healthcare by enhancing services provided



Executed the **first** fenestrated endovascular aortic arch repair **in the MENA**<sup>3</sup> and the first application of **3D bioprinting** at KFSHRC on three patients



Hosted **inaugural Digital Health Conference**, a platform to delve into the realm of **AI innovation** and advancement in healthcare



Published its first edition of the **Journal of Nursing Science and Professional Practice**, an academic and scientific endeavor



Launched **pharmacogenomics service**, offering testing for eligible cardiology patients



Delivered ground breaking **gene therapy** as part of a trial for hemophilia A and B and enrolled in study for PNH, yielding **significant cost savings**



Obtained **US patent registration** for **eye-tracking autism screening**, first in the Middle East

<sup>1</sup> Non-exhaustive list; <sup>2</sup> International Space Station; <sup>3</sup> Middle East and North Africa

# Awards and Recognitions<sup>4</sup>



**Ranked 20<sup>th</sup>**  
among global academic medical  
centers (AMCs) per Brand Finance  
ranking



AMERICAN  
COLLEGE of  
CARDIOLOGY  
FOUNDATION

**'EMS Partner in Care' Designation**  
by the American College of Cardiology  
– first international hospital and only  
institution in KSA



KFSHRC – Madinah awarded one of the  
top 2 in Excellence in Customer Service  
by the Madinah Award Foundation



KFSHRC – Jeddah (Nursing) recognized  
as a 'First Practice Setting Only  
Chapter-Single Institution,' 1<sup>st</sup> outside  
US and 2<sup>nd</sup> globally



**Achieved 98<sup>th</sup>**  
percentile ranking in  
KLAS Research's global EHR  
Satisfaction Survey



**Digital Health Most Wired  
Hospital Award** (Stage 9)  
recognition by CHIME<sup>5</sup>



KFSHRC-Madinah received 2023  
Press Ganey Human Experience  
Award for the outpatient services



KFSHRC CEO named **one of the top  
AMC executives** by Forbes Middle  
East



**Gold Stevie® Award,**  
Company of the Year – Health  
Products and Services (Large  
category)



Patient Flow Command and  
Control Center Project, 3<sup>rd</sup> place in  
the **PMI<sup>6</sup> Technology Project of  
the Year-PMI KSA**



**Four awards** won in the  
**International Patient Safety**  
Conference organized by the  
Saudi Patient Safety Center



KFSHRC researchers included in  
Stanford's list of World's **Top 2%**  
Most-cited Scientists award

While we continue to provide the best healthcare in the region, KFSHRC is wholly committed to raising the bar even further. The caliber of our medical and research colleagues paves the way for continuous improvement and innovation, creating a more healthy and wholesome society. In order to achieve this, we undertake the responsibility for the well-being of our patients and our Kingdom with unwavering dedication and enormous pride. We will continue to unify our resources to shape the regional healthcare industry and harness our collective ambition to elevate the care KFSHRC delivers in the future.

4 Non-exhaustive; 5 College of Healthcare Information Management Executives; 6 Project Management Institute





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# About KFSHRC

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Since its establishment in 1975, King Faisal Specialist Hospital and Research Centre (KFSHRC) has built on its ambitious foundations to become an internationally renowned institution, synonymous with innovative medical advances and consummate patient care.

The pace of healthcare innovation at KFSHRC continuously heralds new dawns of life-changing and life-saving opportunities. Alongside the hospital environment, which strives to provide the most efficient and effective healthcare today, the Research Centre is committed to the industry of the future, aiming to break new medical boundaries and improve the quality of life for all.

In true alignment with Saudi Vision 2030, KFSHRC seeks to enhance and enrich the lives of its patients through outstanding medical care, while contributing to a happier and healthier future for the people of the Kingdom and the greater population.





# SEARCH CENTRE

# Vision, Mission, Values, and Strategic Objectives



## Our Vision

To be the specialized healthcare provider of choice for every patient



## Our Mission

To serve society with the highest level of healthcare and best patient experience in an integrated education and research setting



## Our Values

### Safety

We build our capabilities and implement necessary processes to eliminate preventable harm in KFSHRC and become a High-Reliability Organization (HRO) that delivers safe care.

### Excellence

We distinguish and differentiate our organization through providing outstanding clinical care and a highly satisfying patient experience. We offer healthcare providers top notch education opportunities, while pioneering in medical research.

### Patient Centric

We put the needs of our patients and their families first. This revolves around involving the patients and their families in decision making, by communicating openly and honestly, and treating them with compassion, dignity, and kindness. We show them sympathy and understanding, all leading to world-class customer experience.

### Accountability

We have clearly defined responsibility and accountability at all levels within the Organization. This will ensure awareness and ownership of all operational responsibilities, duties, and ultimately the delivery of the highest level of healthcare.

### Transparency

We uphold transparency within KFSHRC by openly sharing information and data, internally and externally, to better serve our patients and stakeholders and to enable accountability for high-quality care and outcomes.

### Collaboration

We partner and collaborate with leading local, regional, and international organizations to achieve world-class service in clinical, research, and education domains. We support the community via social responsibility activities to positively impact the local community, environment, and society.





## Strategic Objectives



Deliver world-class customer experience, quality, and safety of care to our patients



Provide access to all who need our services



Focus on our core specialties



Be a knowledge leader, through education, research and innovation to support our goals and bring value to the Kingdom of Saudi Arabia



Build, commission, and operate the new Jeddah and Madinah branches, as well as other new capital assets, consistent with our strategic objectives and resources



Transform into a financially sustainable and efficient not-for-profit foundation



Establish effective collaboration and communication within the Organization as well as with external public and private entities

## History and **Milestones**

“I ask Allah Almighty to accept establishing this Hospital and that it will be for the good and happiness of our citizens and those who need its services; our brothers, neighbors, and whoever is in need of treatment and healthcare. May this work be sincerely for Allah as a duty to serve our religion, nation, and Ummah.”

### **King Faisal bin Abdulaziz Al-Saud**

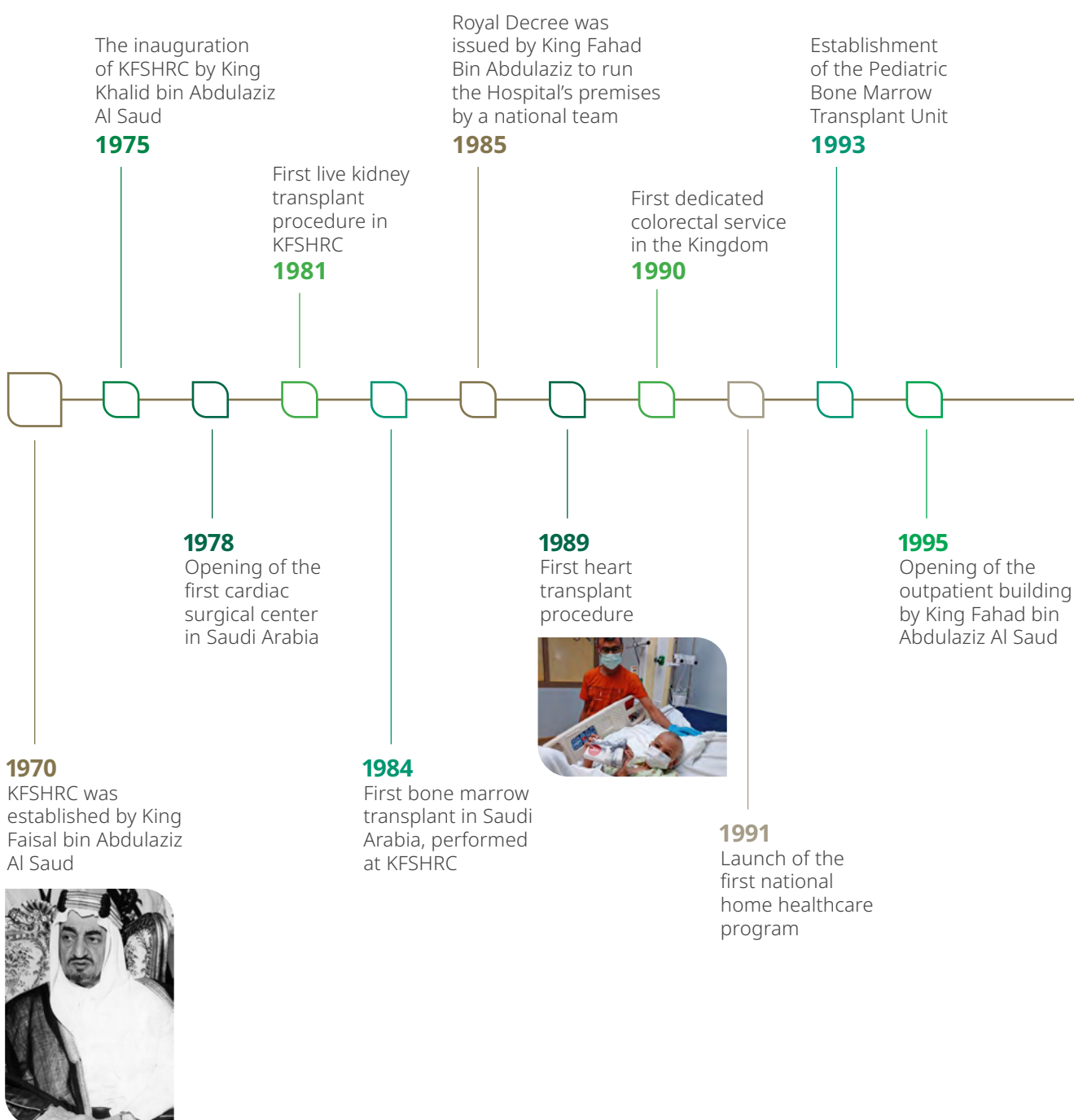
Custodian of the Two Holy Mosques

King of the Kingdom of Saudi Arabia (1964-1975)





KFSHRC has been providing the highest standards of care and service to patients for almost five decades. As a leading tertiary/quaternary healthcare institution in the region, its diverse and manifold contributions to the Kingdom's healthcare sector have been critical to the development of the Kingdom's quality of life and standing as a hub for world-class healthcare in the MENA region. The many memorable milestones in KFSHRC's rich history include:



The inauguration of KFSHRC in Madinah

Issuance of Royal Order to transform KFSHRC into an independent sui generis non-profit foundation that reflects the transformation plans of the Kingdom's Vision 2030

**2021**

Issuance of the Royal Decree to transform the new Al Miqat Hospital in Madinah into a branch of KFSHRC

Opening of the new Emergency Medicine Services Building

**2018**

Expansion of the tele-ICU services across 24 regional hospitals

**2014**



Establishment of the first national bone bank to serve KFSHRC and the Kingdom of Saudi Arabia

Integration of KFSHRC in Riyadh and Jeddah

**2008**

Launch of Pre-implantation Genetic Diagnosis (PGD) program

**2001**

Establishment of the first telemedicine program in Saudi Arabia

**1998**

**2022**

Exceeded the 1,000-mark in solid organ transplantation for the first time



**2017**

Inauguration of the King Abdullah Center for Oncology and Liver Diseases (KACO&LD)

**2011**

Establishment of the Renal Transplant Exchange program in Saudi Arabia

**2007**

Launch of the Cardiovascular Genetics program

Establishment of the Fetal Diagnosis and Therapy program

**2000**

Acquisition of KFSHRC - Jeddah branch



**2020**

Establishment of the Center for Genomic Medicine



# Footprint and Facilities

Across the Kingdom of Saudi Arabia and beyond its borders, KFSHRC is recognized as a beacon of continuous innovation and outstanding care for the healthcare sector. Its facilities in Riyadh, Jeddah, and Madinah are among the most respected in the Kingdom, serving the diverse health and wellness needs of over 37,000 patients on a weekly basis in 2023.

## Specialized Centers



Cancer Center  
of Excellence



Heart  
Center



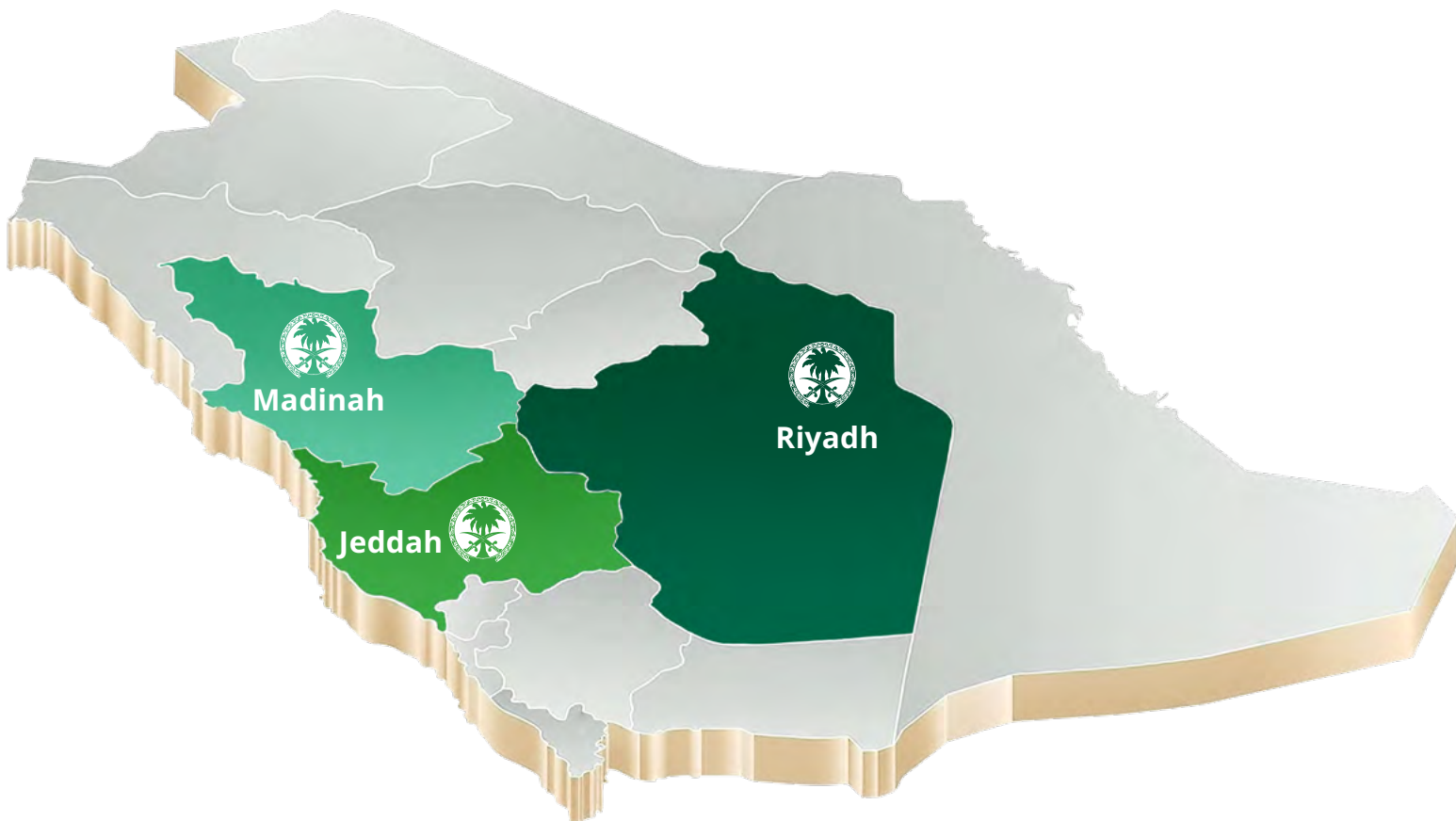
Neuroscience  
Center



Center for  
Genomic Medicine



Organ Transplant  
Center of  
Excellence



## Riyadh Branch

-  12 clinical facilities
-  58 support facilities
-  286 housing facilities
-  Education and training facilities
-  Research center
-  Animal laboratory and holding facility

**~1,000,000**  
m<sup>2</sup>

**1,519**  
beds

**86.4%**  
bed occupancy rate

## Jeddah Branch

-  Clinical facilities
-  54 support facilities
-  2 housing facilities
-  Education and training facilities

**~133,000**  
m<sup>2</sup>

**524**  
beds

**86.4%**  
bed occupancy rate

## Madinah Branch

-  Clinical facilities
-  19 support facilities
-  1 housing facility
-  Education and training facilities

**~121,000**  
m<sup>2</sup>

**400**  
beds

**62.4%**  
bed occupancy rate



# Unique Proposition

## What Makes Us Different

1

Vital provider of high quality complex care and owner of infrastructure that support the unique healthcare needs of the Kingdom and its people

- Five specialized centers
- King Fahad National Center for Children's Cancer (KFNCCC)
- King Abdullah Center for Oncology and Liver Diseases (KACO&LD)
- Health Outreach Services Regional Centers
- Telemedicine services

2

Active role in the training and education of the nation's professionals and their realization of potential and power through knowledge gain

- 170+ residency and fellowship programs
- Life Support Training Center
- Simulation Center
- Continuing Medical Education provider
- Affiliated with Alfaisal University

3

Key anchor for medical innovation and research for Saudi Arabia and the region

- Research Centre with focus on biomedical research in major disease areas and provision of specialized services

4

Advocate of community and social care, providing support to various causes as well as cultural and scientific activities that raise awareness of the health culture

- King Faisal Specialist Foundation (Wareef Charity)
- King Salman Center for Disability Research

5

Business incubator for potential start-ups to commercialize products and services, investing in opportunities and business alliances that contribute to the achievement of financial sustainability

Subsidiaries:

- Saudi Diagnostic Limited Company
- Al-Takassusi General Limited Company
- Allergotek Limited Company
- Mahd Alroya







# Chairman's Statement

//

We have established ourselves as a pioneering, innovative healthcare provider with an incessant commitment to the well-being of the people of Saudi Arabia, where our core belief is that excellence has no boundaries and that ambition is a catalyst for progress. We aspire to play an even greater role in global healthcare and, in 2023, we continued to achieve our medical and operational goals, delivering a higher level of care than ever before, facilitating a healthier population with healthier prospects.

//

Our commitment to Vision 2030 and the welfare of our patients is at the heart of our organization, as we align with the transformation of the Saudi healthcare sector. We have the most skilful practitioners and support teams with a common goal to play an integral role in the development of care to individuals and the community as a whole, with their eyes set firmly on a brighter healthcare future.

Furthermore, with our comprehensive roadmap to succeed as an independent non-profit organization with transparency, accountability and financial sustainability, we have the perfect framework to contribute to the Vision.

In 2023, we embraced the targets we had set ourselves, creating a holistic approach to our goals, with the ultimate aim of creating more effective patient care and reaffirming our position as a highly influential provider on the global healthcare stage.

As a fundamental right of the Kingdom's citizens, healthcare must, by its very nature, be accessible. We are recognized region-wide for our commitment to care and the ever-increasing number of patients who choose our expertise and facilities has grown exponentially. More than 50,000 patients were admitted to our hospitals and medical facilities

last year, and more than 1.9 million visited as outpatients. The figures are not only impressive in their own right, they are indicative of our contribution to the health of the Kingdom's communities.

Our innovation has a consistently increasing impact on the people we treat and their long-term well-being, and the research we conduct for the good of people worldwide is a platform for growth in global medicine. Our advances last year in oncology, transplants, neurology, genetics and much more, provide not only new treatments, but also new avenues of exploration for future breakthroughs.



Our pledge to our patients and the population is that we will continue to deliver the most exceptional services from the most qualified physicians using the most innovative technology. As we elevate our care, we brighten our futures.

## **Mr. Mazin Al-Romaih**

### **Chairman of the Board of Directors**

In such an inspirational environment, KFSHRC is a hub of the most talented medical professionals and ambitious physicians of the future. Our philosophy of respect, enthusiasm and integrity has made us a natural employer of choice, giving our teams both the opportunity and encouragement to learn.

In return for their commitment to KFSHRC and their devotion to the patients they serve, we recognize our employees for the invaluable contributions they make to our success. Regardless of status, each colleague is part of our extended family, which regards their physical, mental, and emotional health as critical to the well-being of the

organization. In our duty as a fair and just employer, we ensure they are rewarded for their successes and helped in their time of need.

For our communities, too, we have a duty of care and continue to contribute to those less fortunate than ourselves through the Wareef Charity, including cost-free treatments, fund-raising and housing.

As we look to the future of healthcare in Saudi Arabia, long-term care, rehabilitation and home care may be focal points, in parallel with the Saudi Vision 2030 goal of extending life expectancy from 74 years to 80 years of age.

For KFSHRC, our strategic direction has always anticipated and acted according to the demands of the healthcare market with speed and agility. As the most prestigious and progressive healthcare provider in the region with world-class research and development facilities, our unwavering commitment to providing the highest level of care will apply to all patients.

# Board of Directors

The Royal Commission for Riyadh City (RCRC) Board Resolution dated 15/09/1444H (April 6, 2023) reconstituted the KFSHRC's Board of Directors in its sixth cycle, appointing Mr. Mazin Al-Romaih as the Chairman and H.E. Mr. Fahd Alrasheed as an independent member.

Royal Decree #36589 dated 15/05/1445H (29 November 2023) was issued to amend the KFSHRC Charter, including the change on item #1 of Article 6, in terms of the board composition. It provided that the Board of Directors shall have [at least] 11 members, inclusive of a chairman and a deputy chairman. Moreover, two members shall be added: representatives from the Public Investment Fund (PIF) and the Secretariat of the Strategic Management Committee (SMC) under the Council of Economic and Development Affairs (CEDA).

## Composition of the KFSHRC Board of Directors, as of 31 December 2023

#	Member Name	Type
1	Mr. Mazin Al-Romaih	Independent Director
2	H.E. Mr. Fahd Al-Rasheed	Independent Director
3	Dr. Paul Rothman	Independent Director
4	Prof. Thomas Coffman	Independent Director
5	Dr. Ross Wilson	Independent Director
6	Prof. Abdullah Daar	Independent Director
7	Mr. David Roberts	Independent Director
8	H.E. Dr. Saleh Al Qahtani	Representative, Royal Clinics
9	Dr. Mohammed Al Abdulaali	Representative, Ministry of Health (MoH)
10	Prof. Hussam Al Faleh	Representative, Center for National Health Insurance (CNHI)
11	Mr. Yasser Al Quhidan	Representative, Ministry of Finance (MoF)
12	H.E. Dr. Majid Al Fayyadh	Executive Director

## The Board of Directors committees

BOD Committee	Chairman
Executive Committee	Mr. Mazin Al-Romaih
Nomination and Remuneration Committee	H.E. Mr. Fahd Al-Rasheed
Audit and Compliance Committee	Mr. Yasser Al Quhidan ( <i>Pending RCRC approval</i> )
Quality and Safety Committee	Dr. Ross Wilson
Transformation Committee	Dr. Mohammed Al Abdulaali
Governance Committee	Prof. Thomas Coffman

Throughout 2023, the Board remained focused on KFSHRC's progress in meeting year-on-year business plan performance improvement targets. A significant area of emphasis for the Board has been the transformation of KFSHRC into an independent nonprofit foundation.

### **BOD's meetings and resolutions for fiscal year 2023**

The Board held six meetings in 2023 and issued 44 resolutions and 28 recommendations on items discussed. Most notable of these are approvals of the following:

- MoF subsidy funding request for 2024
- Consolidated financial statements (accrual basis) of the general organization of King Faisal Specialist Hospital and Research Centre for fiscal year 2020
- Suspension of the Hospital's current Endowment and Donation policy, until further notice
- Whistleblowing Policy
- Corporate Governance Manual
- BOD Advisory Council formation
- Wareef Charity Opex Funding for 2023, 2024, and 2025
- Annual Report for fiscal year 2022
- Three- to five-year Business Plan
- Renewal of the appointment of His Excellency Dr. Majid bin Ibrahim Al Fayyadh as Chief Executive Officer (CEO) of King Faisal Specialist Hospital and Research Centre for three years, commencing 01 January 2024

# Board **Members**



**Mr. Mazin Al-Romaih**  
Chairman, Board of Directors

## **Education**

- Bachelor of Accounting and Financial Management, University of Buckingham

## **Board committee membership**

- Executive Committee



**H.E. Dr. Majid Al Fayyadh**  
Chief Executive Officer  
KFSHRC

## **Education**

- Bachelor of Medicine and Surgery, King Saud University
- Master of Medical Management, University of Southern California

## **Board committee membership**

- Transformation Acceleration
- Marketing and Communications
- InterContinental Hotel and Conference Hall



## H.E. Mr. Fahd Al-Rasheed

Advisor in the General Secretariat of the Council of Ministers of the Kingdom of Saudi Arabia

- Bachelor of Business Administration, Washington University
- Master of Business Administration, Stanford Business School

### Board committee membership

- Nomination and Remuneration



## H.E. Dr. Saleh Al Qahtani

Chief Executive Officer and Chairman of the Board of Directors, Royal Clinics

- Bachelor of Medicine and Surgery, King Abdulaziz University

### Board committee membership

- Nomination and Remuneration



## Dr. Mohammed Al Abdulaali

Assistant Minister of Health, Ministry of Health

- Doctor of Medicine, King Faisal University
- Master of Science in Healthcare Administration, University of Alabama

### Board committee membership

- Governance



## Mr. Yasser Al Quhidan

Assistant Minister for Financial Affairs, Ministry of Finance

- Bachelor of Economics and Accounting, Umm Al-Qura University
- Executive Master of Business Administration, London Business School

### Board committee membership

- Audit and Risk





### **Prof. Hussam Al Faleh**

Chief Executive Officer, Program for Health Assurance and Purchasing, Ministry of Health

- Bachelor of Medicine and Surgery, King Saud University
- Master of Business Administration, Frankfurt School of Finance & Management

#### **Board committee membership**

- Audit and Risk



### **Prof. Thomas Coffman**

Dean at Duke-NUS Medical School, and Professor of Medicine, Duke University Medical Centre, Singapore

- Bachelor of Arts in Natural Science, University of Pennsylvania
- Doctor of Medicine, Ohio State University

#### **Board committee membership**

- Audit and Risk
- Nomination and Remuneration



### **Prof. Abdullah Daar**

Professor of Public Health Sciences and Professor of Surgery, University of Toronto

- Doctor of Medicine, University of London
- Oxford University

#### **Board committee membership**

- Quality and Safety





### Mr. David Roberts

Executive Chairman, Tektology, Holdings Ltd., and Global Health Partner, Ernst and Young

- Bachelor of Business Administration and Management and Master of Business Administration, General Bath University



### Dr. Paul Rothman

Former Chief Executive Officer and Dean of the Medical Faculty, Johns Hopkins Medicine

- Bachelor of Science in Biology, Massachusetts Institute of Technology
- Doctor of Medicine, Yale University

#### Board committee membership

- Nomination and Remuneration
- Quality and Safety



### Dr. Ross Wilson

Chief Executive Officer, RMW Consulting Services

- Bachelor of Medicine and Surgery, University of Sydney
- Doctor of Medicine, University of the State of New York

#### Board committee membership

- Quality and Safety

# Chief Executive Officer's Statement

//

Throughout 2023, KFSHRC pursued its transformational journey determinedly, illuminated by the Kingdom's vision and our aspirations. As we advance, we find ourselves on the brink of a new era, one where progress transcends mere medical advancements. It extends to the lives we touch, the hope we instill, and the healing we facilitate. As such, KFSHRC is not merely contributing to change the landscape of healthcare; we are, in essence, elevating lives—affecting the very core of human well-being and health in ways that will resonate for generations to come. //

In continuing our historic transformation into a nonprofit foundation, we accomplished maintaining world-class services while delivering many of our key financial and operational objectives. Strengthening our structure and sustainability, we established a more detailed and robust framework for management capabilities and leadership, while further designing the transformation direction and embedding governance.

In the midst of transformational efforts, we have ensured that patient welfare is our overarching priority with no room for compromise. In 2023, we accepted over 40,000 new patients across our three branches in Riyadh, Jeddah, and

Madinah, 9% more than the previous year. Outpatient visits to our hospitals likewise increased by 11%, totaling to around 1.9 million. This is an indication of patients' ongoing confidence in our services and trust in our practitioners. In return, we resolve to be better caregivers every day, as we hold the distinct privilege of touching lives and in multiple instances, changing them.

Such is the case described in a number of patients' stories featured in this document. While KFSHRC achieves medical and clinical successes—whether it be the world's first fully robotic liver transplantation, or the implantation of electrodes into a child's brain without major surgery, and the

heart transplant on the youngest patient recorded in the Middle East—the best and most palpable successes are those that stem from the knowledge that through our hospital, people's lives have been positively impacted in ways we never could have prescribed.

Expanding our reach not only within the Kingdom of Saudi Arabia but even across borders and cultures has always been among KFSHRC's many aims. The Virtual Healthcare Center, unified in 2021, has provided services to around 180,000 patients in 2023—a tremendous increase of 1800% since its inception three years ago. With our achievements and reputation



## H.E. Majid Al Fayyadh, MD, MMM

### Chief Executive Officer

reaching the global stage, overseas visitors seeking the most advanced and effective international consultations, diagnoses, and treatments sought KFSHRC. In 2023, more than 400 medical tourists attended KFSHRC facilities, many of them taking advantage of our oncologists' expertise.

Our work has always been underpinned by advancements and ongoing efforts to improve our patients' experience and offer them the best healthcare outcomes. In terms of infrastructure, work progresses on the Polyclinics and Family Medicine Building at the Riyadh site, which was at 75% completed construction-wise by the end of 2023. Insofar as healthcare technology is concerned, we leveraged on artificial intelligence and digital platforms to provide personalized and precise care

to our patients, supported by tools developed such as breast cancer risk assessment, bone marrow transplant prognosis, and pharmacogenomics. CAR T-cell and gene therapies are two milestones in the realm of advanced medical care—something which KFSHRC invests in not only for the treatment and a chance of a better quality of life for our patients, but also the cost savings in the long term. For instance, with the success of enrolling some of the patient population of the Benege clinical trial in hemophilia B, KFSHRC save nearly SAR 52.5 million in medication costs alone. As to CAR T, 58 therapies were performed, a 62% increase from 2022, and millions of savings resulting from treating our patients in Saudi Arabia instead of abroad.

KFSHRC's investments are not only focused on medical developments and facilities. We believe that investing in medical education and training does not just benefit our workforce; it also acts as a catalyst for research and innovation in the healthcare sector. As we elevate the capabilities of our medical professionals, we are not only raising our own standards, but also setting a benchmark for global healthcare excellence. We guided and prepared 2,993 medical trainees in 2023, graduated 374 residents and fellows, and accommodated 6,571 participants in our Simulation Center. The Training Center is underway, and projected to be completed in 2024. This Center will meet our medium-term needs in line with the internal educational component of our academic strategy.

Our research efforts remain at the forefront, especially in the fields of genetics and neurosciences. Our studies on early autism diagnosis have led to improved diagnostic tools and early interventions, allowing patients to receive timely support. We have also identified novel genes responsible for rare Mendelian disorders and chronic inflammatory syndromes, enabling personalized treatments. Our Research Centre played an integral global role in advancing and pioneering some of the most innovative fields in modern medicine. It was with enormous pride that the KFSHRC team participated in the first Saudi mission to space by conducting a comparative investigation onboard the International Space Station (ISS) in 2023. Conducting research experiments in cell sciences designed by KFSHRC was one of our most ardent researchers, Rayyanah Barnawi, who became the first Arab female astronaut to space.

As an institution, we are steadily building our way to the top ranks. KFSHRC was listed 20<sup>th</sup> among global academic medical centers per Brand Finance, and the first ranked in Saudi Arabia per Newsweek's World's Best Hospitals list. We received several accolades in 2023, from the digital health most wired hospital to a Gold Stevie award, KFSHRC-Madinah gaining recognition for excellence in customer service, and our Patient Flow Command and Control Center Project placing among the top technology projects of the Project Management Institute- KSA. KFSHRC's nearly five decades of service has certainly established its solid reputation. While our foundation is strong, it is crucial to acknowledge that our journey is far from over. Our pursuance of and efforts towards excellence will need to evolve, in fact elevate, as we focus on the future of healthcare.

I thank the Kingdom of Saudi Arabia's leadership, the Custodian of the Two Holy Mosques, King Salman bin Abdulaziz Al Saud, and His Royal Highness, the Crown Prince, Prince Mohammed bin Salman bin Abdulaziz Al Saud, for their unwavering trust in KFSHRC. I also express my appreciation to the Chairman of the Board and the Board members for their guidance.

To every personnel and patient at KFSHRC—thank you for believing in OUR hospital.









# Expanding Our Strategic **Horizon**

The Saudi Arabia leadership's vision for KFSHRC is bold and ambitious, building on the Hospital's ability to revolutionize healthcare delivery to meet the needs of our patients. KFSHRC started its transformation journey in late 2016, and since then experienced the dynamic and challenging process first-hand; from onboarding the whole organization to crafting a transformation plan, endeavoring to meet expectations while simultaneously maintaining operations business-as-usual.

The transformation program is designed to help the organization transition into a nonprofit independent foundation, enabling KFSHRC to have the autonomy and flexibility to develop existing services and resources, and explore new opportunities. The program will change working practices across the Hospital, spanning across research, academia, information technology, finance, and human resources. Transforming KFSHRC will unlock its potential to deliver more to our patients, citizens, and to healthcare locally and globally.

KFSHRC's transformation journey follows a comprehensive roadmap that covers aspects such as strategy, governance, finance, and human capital



Activation of the KFSHRC Corporate Transformation Office centralizes transformational activities and efforts, ensuring coordination among both internal and external stakeholders and monitoring of projects

Council of Economic and Development Affairs (CEDA) plays key role in determining KFSHRC's transformation direction, especially during the early stages of conceptualization





Alignment with HRH the Crown Prince and the Royal Commission for Riyadh City (RCRC) ensures that KFSHRC is on the proper path to realizing the Kingdom's aspiration of elevating the provision of healthcare, not only to its people, but also to the global society



Royal decree issuance marks KFSHRC's transformation into an independent nonprofit foundation, the commencement of an even greater evolution towards new levels of excellence

With KFSHRC's operational transformation, the Hospital treats more patients, virtual care expands tremendously, efficiency measures increase, and sustainability in all aspects becomes a primary consideration







02





# Continuing Our Journey to Operational Excellence

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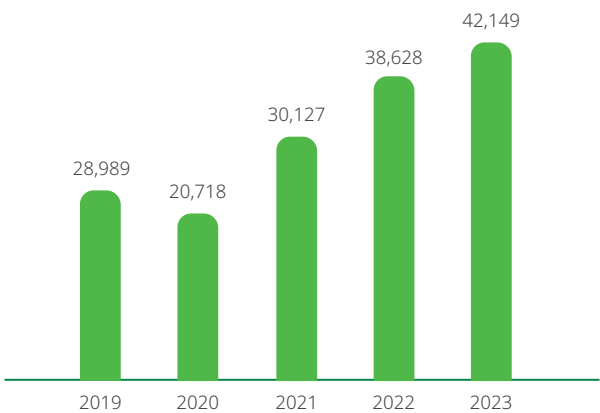
# Access to Care

Reinforcing its status in 2023 as a center for healthcare excellence and a hub for pioneering medical innovation, KFSHRC forged ahead with its pledge to increase the quantity of its patients and improve the quality of their care. Our achievements demonstrated both our commitment to those goals and our success in realizing them. Equally as important, not only can we look back on a year of milestones, but we can also look ahead to even greater medical advances and a healthier society.

With a 10.2% increase in referrals and a rise of 9.1% in acceptances in 2023, we witnessed a significant growth in admissions, procedures and diagnoses, employing more advanced processes with more successful outcomes. Virtual visits are up over 105.5% from last year over the same period.

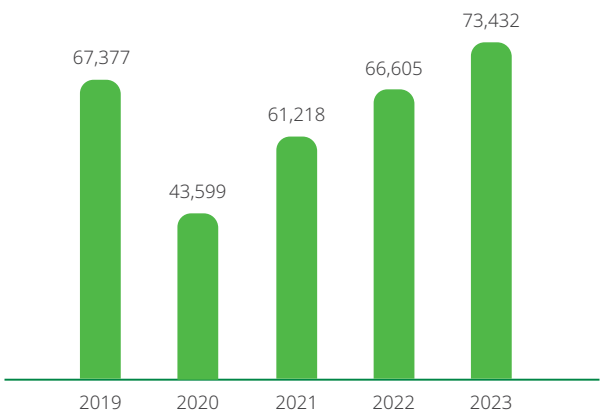
As ever, we have been devoted to all aspects of patient care through a combination of specialized practitioners and progressive treatments, building on our successes to create a better future. Each year, the Hospital endeavors to cater to more patients and all who need its services.

Number of New Patients Accepted, five-year period



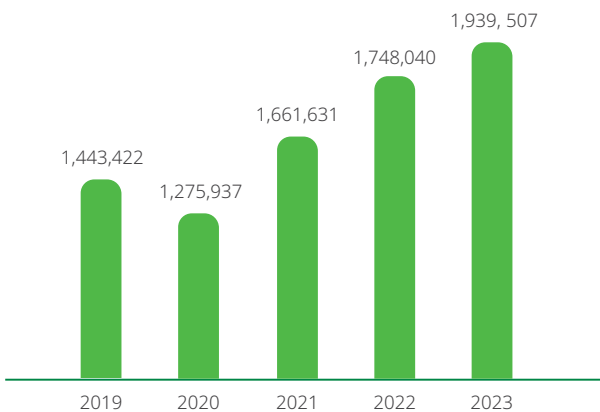
Desired direction: ↑

Total Cases Referred to KFSHRC



Desired direction: ↑

Outpatient Visits



Desired direction: ↑







In its role as a leading medical facility in Saudi Arabia, KFSHRC is widely acknowledged as a primary referral facility for numerous patients who require specialized diagnoses, treatment, and care.

Accepted Patients in Core Specialized Services

18,708

(2022: 18,092)

Cancer Center of Excellence

5,150

(2022: 5,073)

Center for Genomic Medicine

1,339

(2022: 1,217)

Heart Center

3,261

(2022: 3,431)

Neuroscience Center

4,628

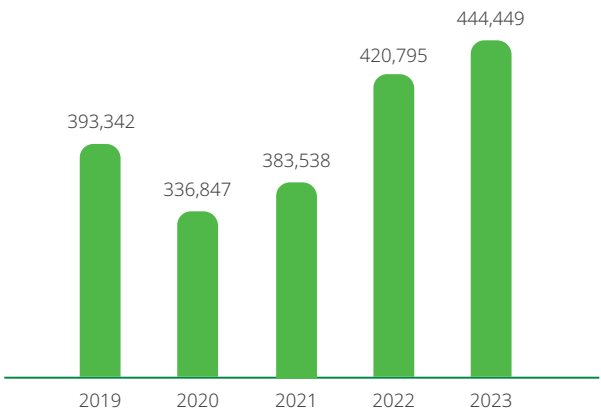
(2022: 4,411)

Organ Transplant Center of Excellence

4,330

(2022: 3,957)

Inpatient Days



Desired direction: ↑

Outpatient access

On an average week, KFSHRC treated approximately 37,200 patients in clinics of various specialties. We recorded a total of 1,939,507 outpatient visits in 2023, an 11% increase from the previous year. Visits under our core specialized services amounted to around 25% of the total number. The increased visits translated to a greater number of most day procedures and other related services.

Day Procedure Visits

Total number of visits

137,849

(2022: 124,673)

Cardiac Holding Unit

4,857

(2022: 4,696)

Endoscopy Unit

14,807

(2022: 12,564)

Day Surgical Unit

11,887

(2022: 10,356)

Hemodialysis Unit

66,458

(2022: 64,191)

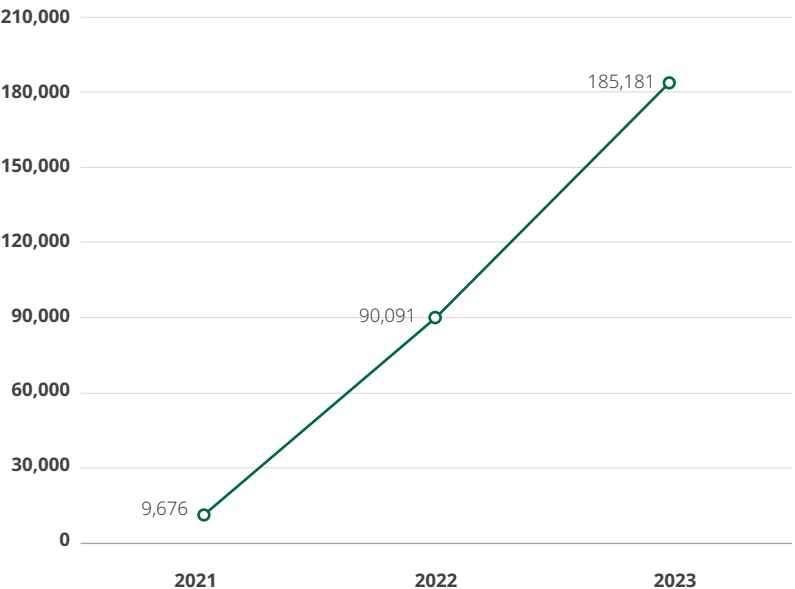
Day Medical Unit

39,840

(2022: 32,866)

The advent of new models of care prompts KFSHRC to expand its reach, providing consultation and services across radiology, pathology, laboratory, and critical care online. Launched in 2021, the Virtual Healthcare Center has brought stand-alone services under a unified umbrella and promotes KFSHRC as a modern healthcare provider. In three years, the number of patients seen virtually has exponentially increased.

Patients Seen through Virtual Clinics



## Emergency access

A review of Emergency Room (ER) results indicated both a number of improvements and the need to constantly improve others over 2022.

Despite ER attendance increasing by 4.1% from last year over the same period, average waiting times for physicians to assess serious, but not immediately life-threatening, conditions were down by 17.6% to 42 minutes (all categories), and by 22.5% to 31 minutes for the Category 3 patients. However, there were some overcrowding issues and longer waiting times for inpatient beds, mainly due to non-confirmation of discharges early on and an increase in difficult discharges. There was also a slight increase in ER patients leaving the hospital before being seen by a physician; from 2.2% in 2022 to 2.3% in 2023.

The average time between a physician's decision to admit a patient and the time the patient actually occupied an inpatient bed has reduced from 9.7 hours in 2022 to 9.5 hours in 2023, primarily due to an unavoidable shortage of available beds. In total, the occupancy rate was 84.4% for the year 2023.

The loss of approximately 130 beds due to the renovation projects at the Riyadh site was a major contributing factor in the challenges facing ER in 2023.



## Emergency Room

### Total number of visits

**159,425**

(2022: 153,205)

### Boarding time (hr)

**9.5**

(2022: 9.7)

### Patients who left without being seen

**2.3%**

(2022: 2.20%)

### ER waiting time to be seen (min)

#### All categories

**42**

(2022: 51)

#### Category 3

**31**

(2022: 40)

Inpatient access

Reflecting the growth strategy of KFSHRC to care for more patients throughout 2023, the total number of admissions increased by 6% from 2022. Inpatient days were up approximately 5.6% owing to improved efficiency in managing patients’ length of stay, reducing operating room cancellations and changeover times, as well as the increasing use of step-down care. However, the rising tide of patients coupled by the loss of beds due to several factors has driven the need for additional specialty bed capacity.

Total number of admitted patients

50,109  
(2022: 47,255)

Inpatient days

444,449  
(2022: 420,795)

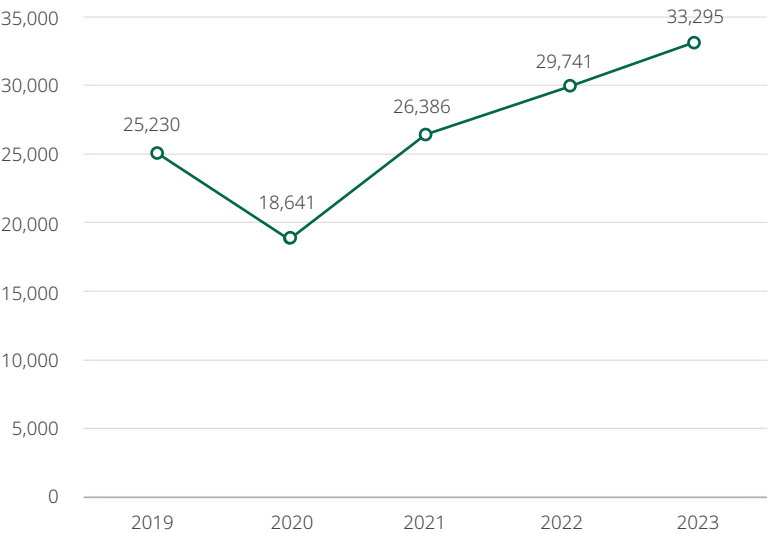
Same day admissions

9,494  
(2022: 7,609)

Core Specialties and Notable Programs

KFSHRC is renowned for its unrivalled specialized care and innovation in multiple specialty and sub-specialty medical fields, including oncology, cardiology, neurosciences, organ transplantation, and genomics. We consistently break new boundaries in medical technology, pioneering, adopting, and adapting the most advanced procedures to provide optimum care for our patients and a healthier future for our Kingdom.

Total Surgeries



Epilepsy surgeries

248  
(2022: 290)

Cardiac surgeries

2,098  
(2022: 2,041)

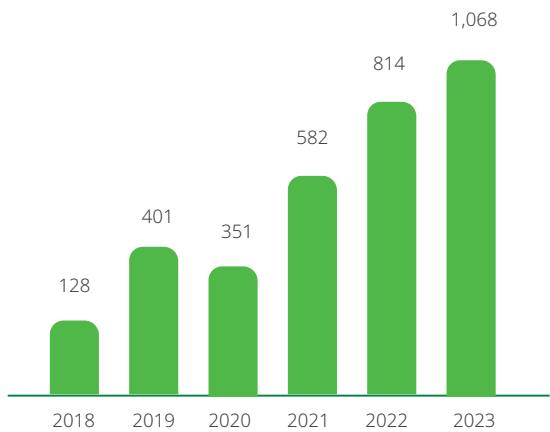
KFSHRC Rises in Robotic Surgery

KFSHRC embarked on its robotic surgery journey in 2003, becoming the first institution in the Middle East to have ventured in the field. Over the years, the Hospital continuously developed in this area, performing robotic-assisted procedures for various services: urology, cardiology, transplantation, and general surgeries. Robotic surgery has contributed to decreasing the length of stay in-hospital, reducing post-procedure discomfort for patients, and promoting faster recovery.



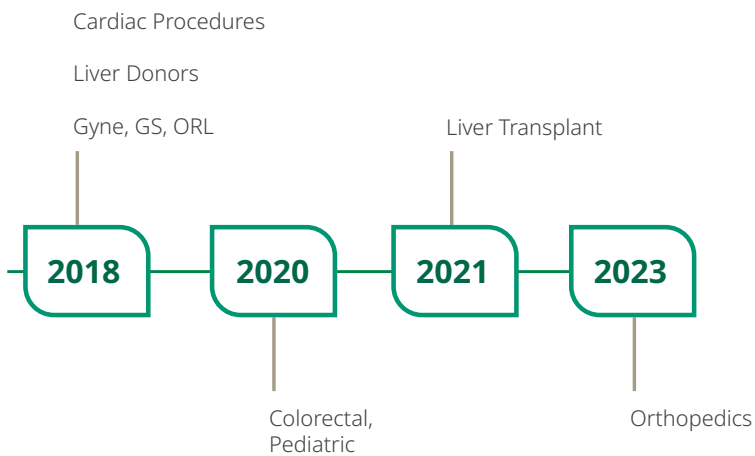
In 2023, KFSHRC has performed a total of 1,068 robotic-assisted procedures at the Riyadh and Jeddah sites. The addition of two models, bringing our robotic fleet to seven, furthered our capabilities in the specialty.

**Robotic-assisted procedures 2018-2023 (KFSHRC – Riyadh)**



Desired direction: 

**Robotic surgery service introduction over the last five years**



**First Fully Robotic Liver Transplant in the World**

Robotic surgery is a game-changer, particularly in conducting donor and recipient surgeries. According to Prof. Dr. Dieter Broering, Executive Director, OTCOE, “Using this technology, we achieved unparalleled precision and minimal invasiveness, eliminating the need for a hybrid approach. This innovation dramatically enhances patient safety and recovery, expanding the possibilities for treatments that were previously considered too risky or complex. It marks a significant step forward in our mission to revolutionize patient care and elevate global healthcare standards.”





## Genomics and Precision Medicine

As genomic and precision medicine gains even more global momentum in identifying, diagnosing, and treating individuals and populations, the need for investment is crucial. KFSHRC's Center for Genomic Medicine (CGM) is the most advanced facility of its kind in the Kingdom, providing both a core service and a research hub for the future.

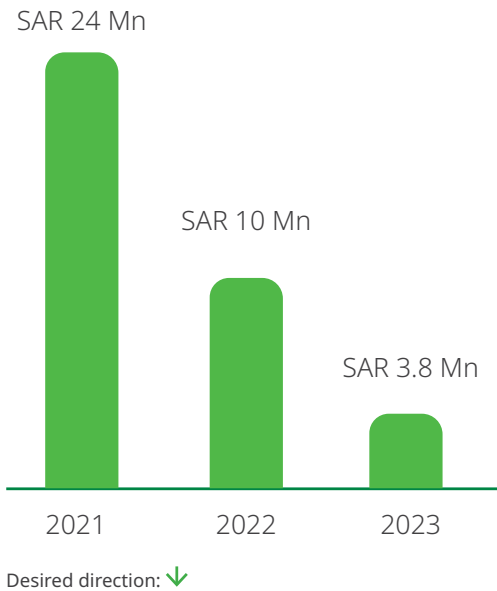
Through expert medical evidence and scientific data analysis, physicians and researchers are able to assess and evaluate opportunities to improve patient care through disease prevention, better diagnoses, and targeted treatments. Identifying the characteristics of potential diseases in individuals could lead to more targeted therapy or preventive action. As a clear regional leader in genomic and precision medicine, KFSHRC now plans to claim a major role on the world stage.

### Genetic Testing (Send-outs)

Send-outs occur when samples are sent to an outside laboratory for testing because the test is not available at KFSHRC. In 2021, KFSHRC spent approximately SAR 24 million on samples sent to outside laboratories for genetic testing. We were able to **reduce** this **cost** to approximately SAR 3.8 million in 2023 after CGM-KFSHRC **localized 90% of the testing and doubled the number of tests** with increased efficacy and better patient care. CGM intends to increase this figure to around 98% in the coming year.



### KFSHRC Spend on Send-outs



### Clinical Genomics – Cases Analyzed

Whole genome

**1,134**

\*New test started from May 2023

Targeted mutations analyzed

**3,969**

(2022: 1,586)

Whole exome

**5,658**

(2022: 2,348)

Oncology

**16,437**

(2022: 14,234)

Prenatal

**1,376**

(2022: 1,441)

Genomics and precision medicine activities

**4,197**

(2022: 2,751)

### Translational Genomics

Exomes annotated

**1,185**

(2022: 553)

Genotyping files processed

**3,217**

(2022: 1,433)

## Cardiovascular

From cardiac catheterization to its first heart transplant and today's congenital heart disease procedures, the KFSHRC Heart Center has provided specialized cardiovascular care in the region over the years. Experience, expertise and an innate ambition to innovate has enabled the provision of the most complex cardiac treatment. This includes the only service in the Middle East with TransMedics Organ Care System Heart in a Box technology, as well as EXVIVO and ECMO technology to lung transplant patients. In 2023, access to care improved with our outpatients increasing by 26.7% compared to the previous year.

### **KFSHRC successfully performed a heart transplant on the youngest patient recorded in the Middle East**

In 2023, a team at KFSHRC-Riyadh successfully performed a heart transplant for a baby boy who was two months old at the time of the procedure. This is the youngest heart transplant patient treated in the Middle East.

As a result of his advanced condition, the baby required immediate heart transplantation. KFSHRC was able to apply a unique technology to offer an ABO incompatible transplant. This technology requires certain expertise in order to be applied safely in an operation; KFSHRC is among the very few centers across the world that has such expertise.

Efficient coordination among multiple sub-specialties was utmost for the successful execution and handling of the case. Our patient is now in good health, and growing well.



## Neurosciences

KFSHRC's Neuroscience Center offers the most advanced levels of regional medicine in terms of surgery, diagnostics and intervention of the nervous system with a focus on the brain. In 2023, the Center implanted electrodes into the brain of an 11-year-old epileptic boy without the need for major surgery, the first procedure of its kind in the Middle East. In addition to epilepsy treatment, internationally renowned neuroscientists specialize in numerous adult and paediatric treatments, including neurology, psychiatry, psychology, movement disorders, mechanical thrombectomies and neurophysiological procedures.

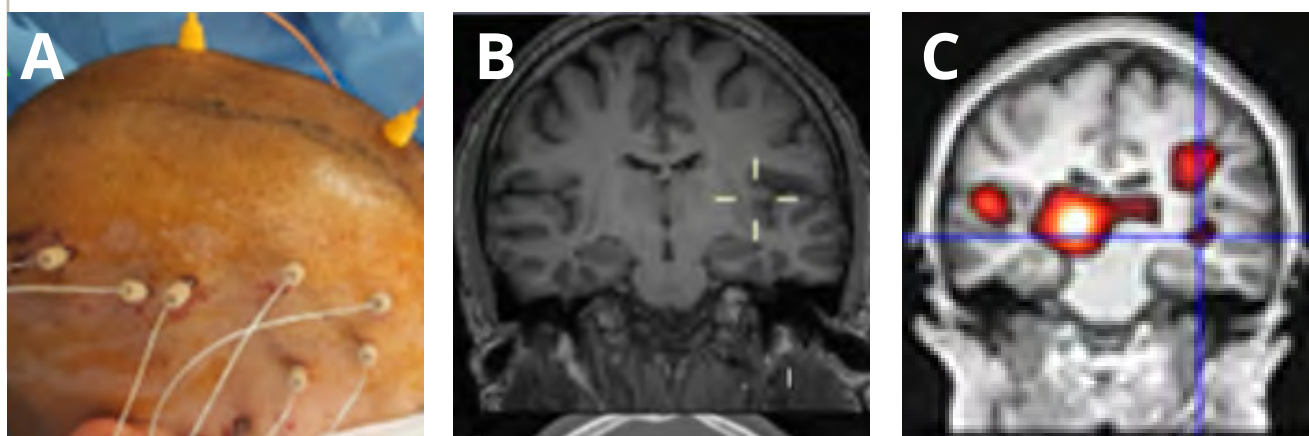
### Successful Implantation of Brain Electrodes in a Child Without Major Surgery

The Integrated Practice Unit (IPU)-Epilepsy at the Neuroscience Center successfully implanted brain electrodes in an 11-year-old child who underwent a stereo-EEG evaluation for his drug-resistant epilepsy. In very rare cases such as this, the procedure itself resulted in the resolution of his epilepsy. The patient did not require any respective surgery and is seizure-free to date. This pioneering procedure is the first of its kind in the Middle East.

Stereo Electroencephalography (SEEG) is a minimally invasive intracranial procedure, which KFSHRC commenced in February 2023. It requires the addition of thin electrodes inserted via small burr holes, into multiple regions in the brain.

The IPU-Epilepsy team explained that, "Performing such a medical procedure on children is accompanied by challenges that differ from those of adults, as adults are expected to fully adhere to the instructions provided to them, unlike children, whose movements are difficult to control for periods of time. It takes a long time, which increases the difficulty of carrying out the medical procedure. However, the medical team was able to overcome the challenge completely and successfully by using tactile orientation technology."

*Figures: A. Patient with SEEG implantation; B. MRI with electrodes; C. Ictal SPECT<sup>1</sup>*



<sup>1</sup> Single-photon emission computed tomography, a nuclear imaging modality



## Oncology

KFSHRC's Oncology Center was founded as the first cancer center in the region and has more than 40 years' experience as the premier healthcare provider in the field. Recently, it has been aptly renamed Cancer Center of Excellence. In 2023, approximately 25% of all cancer cases in the Kingdom of Saudi Arabia were treated at KFSHRC, of which around 50% showed full recovery, with that figure reaching a recovery rate of 90% in leukemia.<sup>1</sup>

Among its milestones during the year is the introduction of Axixel, a cutting-edge CAR T-cell therapy for non-Hodgkin's lymphoma (NHL), marking our cancer center as the only center in the region offering this advanced treatment. Further advancing its technological capabilities, the center commenced the first 4D PET/CT simulation for thoracic malignancies in the Kingdom and pioneered the use of Tabentafusp for ocular melanoma treatment in Saudi Arabia. In the realm of clinical research, the center was recognized for conducting the highest number of clinical trials in the hospital, notably including a ground-breaking gene therapy trial for Hemophilia A and the enrolment in the Crovalimab study for paroxysmal nocturnal hemoglobinuria (PNH), yielding significant cost savings.

The Pediatric Hematology/Oncology department at King Fahd National Center for Children's Cancer Centre (KFNCCC) serves as an integral part of two core competencies of the institution: oncology and organ transplant. With the current portfolio accredited through several strategic international partnerships positions, the center is at the forefront of the healthcare transformation drive as a world-leading institution in the field of childhood cancers, stem cell and cellular therapy. Its patient survival outcomes are benchmarked to report comparable outcomes, strengthening families' trust in us as the treatment center of choice.

### KFSHRC Five-year Patient Survival Rates for Select Types of Cancer

#### Adults



Hodgkin's lymphoma (HDL)

**94.1%**



Lymphoma

**82%**



Breast cancer

**73.5%**



Colorectal cancer

**45.3%**

#### Pediatrics



Acute lymphoblastic leukemia

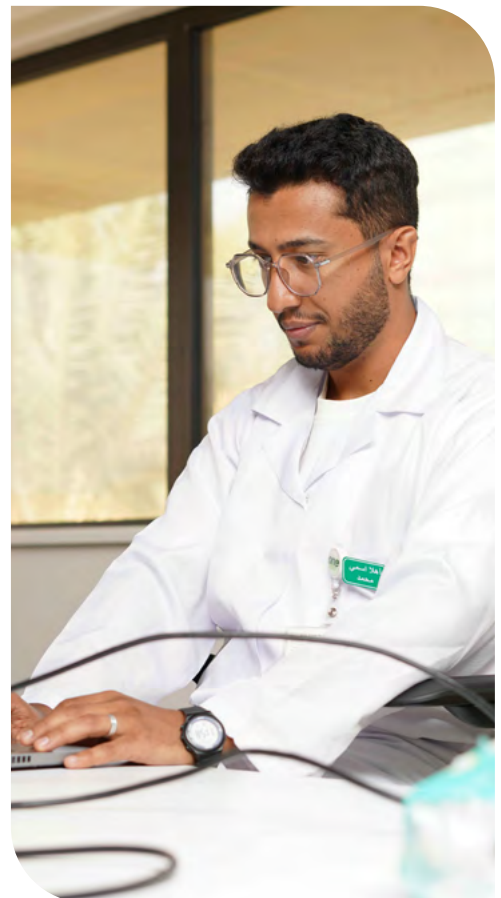
**94.1%**



Renal tumors

**97%**

<sup>1</sup> Relevant article: <https://www.zawya.com/en/life/health/cancer-survival-rate-in-saudi-arabia-reaches-50-and-97-in-some-cases-vv4vh0x2>



### Changing lives, one CAR T-cell therapy at a time

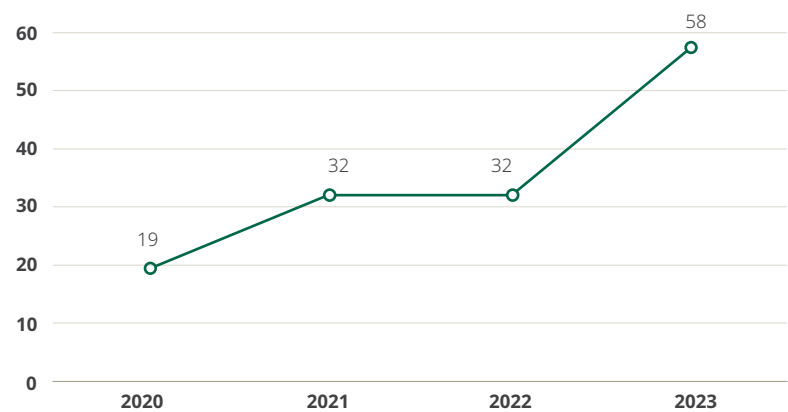
The rapid global development and implementation of chimeric antigen receptor (CAR) T-cell therapy – where cells are harvested from the patient’s own immune system, modified genetically and then returned to patients – has revolutionized the treatment of blood cancers. KFSHRC is one of the few medical centers in the world qualified to provide this treatment, the first of which was administered in 2021 on a 13-year-old patient with multiple recurrences of acute lymphoblastic leukemia.

Since the inception of the hospital’s CAR-T cell program, the annual number of patients has grown dramatically, and KFSHRC has now treated over 100 adult and pediatric patients.

KFSHRC aspires to develop a point-of-care manufacturing facility for quality cells to expand patient access to care and decrease operating costs. To that end, KFSHRC established the infrastructure to start producing CAR-T cells locally and conducted a successful practice run to test the process. At present, KFSHRC is at work on the final stages of acquiring Saudi Food and Drug Authority’s approval for manufacturing.

In 2023, 58 CAR T-cell therapies were performed, a 62% increase from 2022.

CAR T-cell Therapies, KFSHRC – Riyadh



### Will Against the Odds

Hana was diagnosed with lymphoma and was initially treated with chemotherapy. Unfortunately, her disease did not respond to the treatment. The patient consented to undergoing more chemotherapy sessions, which still did not relieve her of the illness. Hana is married with children. She is a scientist.

Following the failed treatment attempts, Hana was referred to KFSHRC for CAR T-cell therapy. While the CAR T-cells were fighting the cancer cells, Hana struggled and likewise fought valiantly to survive. Her will prevailed, and within four weeks of therapy, Hana was able to go home to her family. She gradually recovered and returned to work. At the same time, Hana has been raising her children, disease-free.



Milestone therapy, significant cost savings

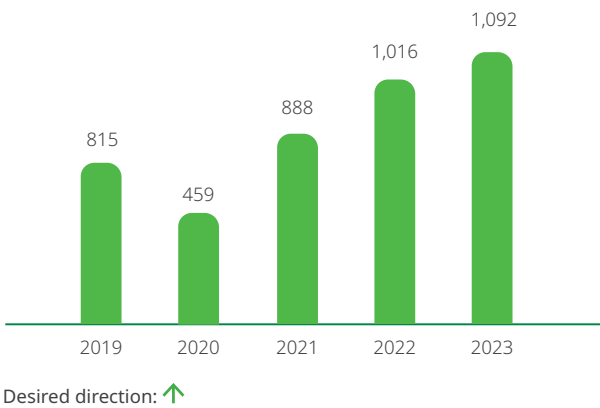
The department of hematology (stem cell transplantation and cellular therapy), in collaboration with Pfizer, has succeeded in enrolling approximately 10% of the patient population of the Benege clinical trial in hemophilia B, involving breakthrough therapy with potentially curative one-time infusion of Beqvez (fidanacogene elaparovect-dzkt). The drug is priced at USD 3.5 million per patient, reflecting significant cost savings for the hospital by nearly SAR 52.5 million. This milestone therapy marks a pivotal moment in medical advancement.



Solid Organ Transplants

KFSHRC confirmed its status as a leading transplant center in 2023, successfully performing the world’s first fully robotic liver transplant. The medical milestone reinforces the Organ Transplant Centre of Excellence (OTCoE) as a pioneer of minimally invasive transplant surgery and a major force in developing new procedures. The solid organ transplantation activities at KFSHRC dramatically evolved over the years, recording a total of 7,954 since 1981. The year 2023 alone passed the 1,000-mark, with a 7.5% increase compared to the previous year.

Solid Organ Transplants, KFSHRC Five-year trend



Liver

**313**  
(2022: 304)



Heart

**27**  
(2022: 21)



Kidney

**692**  
(2022: 636)



Intestine

**3**  
(2022: 5)



Lung

**40**  
(2022: 39)



Pancreas

**17**  
(2022: 11)



**Globally, KFSHRC has taken leadership in several transplantation specialties, as well as in terms of the number of transplants performed in a single center compared to US transplant centers.<sup>1</sup>**

Liver transplant by all donor types and all recipient ages	1 <sup>st</sup> out of 144 US transplant centers
Liver transplant by living donor type and all recipient ages	1 <sup>st</sup> out of 62 US transplant centers
Pancreas transplant by deceased donor type and adult recipients	1 <sup>st</sup> out of 37 US transplant centers
Kidney transplant by living donor types and all recipient ages	1 <sup>st</sup> out of 222 US transplant centers
Paired kidney exchange	1 <sup>st</sup> out of 139 US transplant centers
Kidney transplant by all donor types and all recipient ages	2 <sup>nd</sup> out of 233 US transplant centers

#### One-Year Patient and Graft Survival Rates, OTCOE – KFSHRC

	2022		2023		Benchmark <sup>2</sup>
Type of Organ Transplant*	Graft Survival	Patient Survival	Graft Survival	Patient Survival	One-year US Patient Survival
Adult liver (LD & DD)	85.9%	85.9%	92.3%	93.4%	93.71%
Pediatrics liver (LD & DD)	89.7%	93.5%	90.8%	93.6%	94.69%
Adult kidney (LD & DD)	96.6%	98.5%	97.0%	98.4%	97.0%
Pediatrics kidney (LD & DD)	95.6%	100%	98.2%	98.2%	99.49%
Adult lung (DD)	83.3%	83.3%	87.5%	87.5%	78.03%
Pediatrics lung (DD)	100%	100%	100%	100%	N/A

\* LD = Living Donor; DD = Deceased Donor

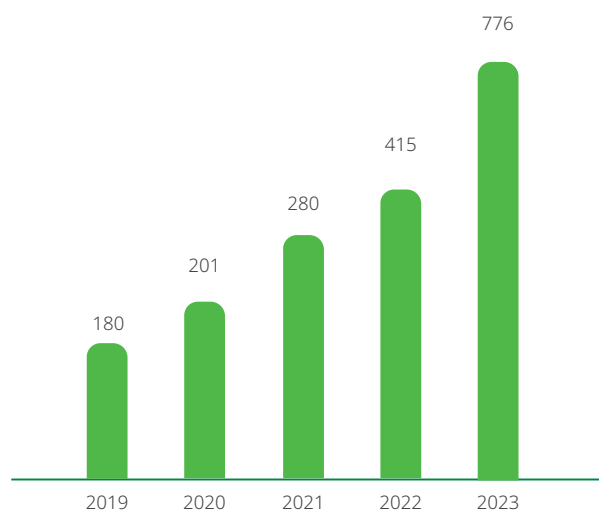
1 The Organ Procurement and Transplantation Network, <https://optn.transplant.hrsa.gov/>; 2 Scientific Registry of Transplant Recipients (SRTR) report, [www.srtr.org](http://www.srtr.org)

To support its transplantation activities, a number of clinical programs and services were either established or enhanced by the OTCoE in 2023. Programs such as the Transplant Pharmacotherapy service, Post-Transplant Diabetes clinic, and Pediatric Small Bowel Transplant program ensure that patients receive the highest level of healthcare. The hemodialysis services increased its capacity to accommodate around 400 sessions per month, while endoscopy services also saw an increase in its utilization in 2023. Additional newly developed clinics such as the Liver Transplant Psychology clinic, Nurse Practitioner clinic, Post-donor clinic and Hepatology Urgent Add-On clinic all provide vital services to patients along their clinical care path.

To further underline its position as a leading transplant center, the OTCoE held a number of international conferences and training programs throughout the year, and hosted 49 visiting professors from 13 countries. Publications in journals such as Lancet Gastroenterology Hepatology, International Journal of Surgery and Annals of Surgery contributed to a publications total impact factor of 776 for 2023.

Patient centricity is a core value at KFSHRC and always a focus in the OTCoE. Contributing to the improvement of the lives of patients and their families provides great pride and enormous fulfillment to the team. Hearing patients' stories about how their lives have been positively impacted through the actions of their loved ones at KFSHRC, serves to emphasize the significance of the responsibilities of the OTCoE and how grateful KFSHRC is to contribute to the lives of so many.

**OTCoE Publications Total Impact Factor**



Desired direction: ↑



### Sparks of Hope

At 17 years old, I am just truly grateful to be alive and free of most pain. The past three years felt like a nightmare I could not escape from. I was 14 when my abdominal pain started, during a desert campout with my friends. Since then I was in and out of hospitals, undergoing procedure after procedure, leaving my body so exhausted and my mind anguished. Five surgeries left me with a stomach tube and a complete resection of the colon and anastomosis. I thought it was all over ... finally.

However, my suffering continued for two years. My father searched for hospitals around the world, and finally found one in the US. After several months, I was diagnosed with a rare congenital disease that targets the intestines until they fail. One procedure that could possibly save me was an organ transplant.

Fast forward to coming home to Saudi Arabia, I was transferred to King Faisal Specialist Hospital and Research Center to continue my treatment. The medical team handled my case in the smoothest way possible, until I could go home while waiting for an organ match. A day before the Saudi National Day, my mother told me to prepare; they found a donor. All I remember is putting my entire trust in Allah. I was blessed with this organ and looked forward to the day of return, the day of hope and life.

On Saudi National Day 2023, the transplant procedure was performed. The organ matched, and I found myself waking up to a new beginning. I am beyond grateful to my country for taking me home and finding a matching organ for me. I am thankful to KFSHRC for being the instrument to bringing back hope and allowing me to live longer.

—Small bowel transplant survivor, 18





### Race for Life

After only four months and twenty days, I participated in my first race after being a donor to my dearest father who required a liver transplant. My father suffered from end stage liver disease and needed a liver transplant. In certain circumstances, this procedure requires someone with matching tissue to give part of their liver to the recipient. It was just so fortunate that mine matched his.

My race started six weeks before the operation. I was not interested in sports and had many unhealthy eating habits. But with my strong desire to save my father and guided by the medical team at KFSHRC, I was able to lose nearly ten kilograms, enabling us to proceed with the transplant.

Since the operation, my father has become healthier and the smile has returned to his beautiful face.

I will always remember the entire medical team at KFSHRC. Indeed, the presence of a medical facility at the international level gives reassurance and comfort that the care provided is nothing short of the best.

After the operation, I gave up some bad habits and developed a new lifestyle. I focused on maintaining my mental and physical health and even joined the Riyadh marathon. Since then, I continued running and participated in races in the beautiful city of AlUla and the majestic mountains of Tuwaiq.

This experience has taught me that one of the most important lessons in life is giving. It has the most significant impact on a person's life—love for life, a sense of fulfillment, and bountiful blessings.

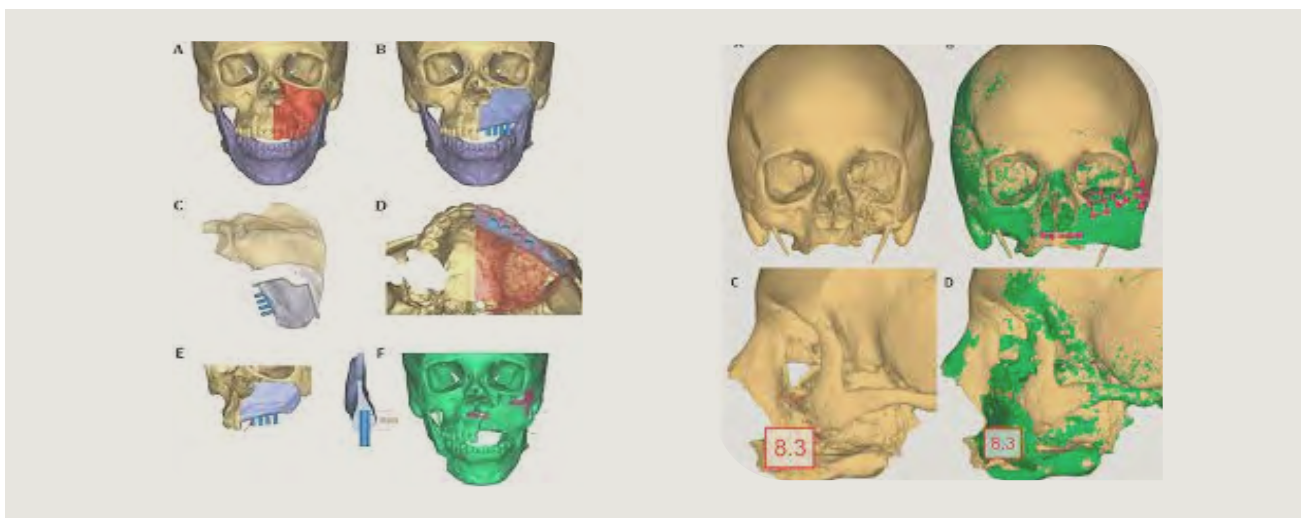
—Liver transplant donor, patient's son



### A New Milestone for Otolaryngology, Head and Neck Surgery

We achieved a significant milestone by successfully performing the first Scapula Tip-Free Flap procedure for midface reconstruction. This groundbreaking achievement at KFSHRC brought renewed hope to a young woman battling recurrent oral cavity cancer.

Our skilled surgical team at the Department of Otolaryngology, Head and Neck Surgery replaced the roof of the mouth using the innovative Scapula Tip-free Flap technique. This procedure shows to improve the patient's quality of life; the adoption of which demonstrates our commitment to providing exceptional care and exploring innovative approaches in medicine.



### Function-Saving Spine Surgery

A 16-year old male with Prune Belly syndrome and a chronic kidney failure underwent renal transplant in 2015 (aged eight) at KFSHRC. The patient has major complex spinal deformity, leading to daily handicap in his activities including extreme difficulty in walking. In addition, the cosmetic aspect of the deformity diminished his self-confidence.

This deformity was corrected using the double-rod technique, with no complications. KFSHRC is one of the few centers in the country capable of doing such complex spinal deformity. This procedure improved the patient's quality of life, helped him to walk easily, perform his daily activities, and live as normally as possible.



### Welcoming International Patients, Caring Beyond Borders

At the heart of the ever-evolving industry of healthcare in the Kingdom lies a profound and innate dedication to patient-centered care. This commitment serves as the cornerstone upon which we build a healthcare sector that transcends borders and truly caters to the needs of a global patient population.

As the Middle East's most advanced healthcare facility, KFSHRC is a hub for region-wide patients seeking specialized medical services. A spectrum of world-class diagnosis tools, treatment plans, and surgical procedures attracts a vast number of visitors seeking more cost-effective solutions than travelling to more distant international centers.

While KFSHRC's main aim is to establish itself as a regional and international provider of high-quality healthcare at reasonable costs, medical tourism also serves to position Riyadh as a center for economic activity and innovation. The effects of medical tourism extend beyond the healthcare industry as the wider national economy also stands to benefit.

Set out below are some of the key statistics relating to our international patient and medical tourism growth in 2023:

### Number of international patients, top five countries

Kuwait	302
Bahrain	128
Oman	8
Qatar	7
UAE	7

### New referral countries

Egypt	3
USA	3
India	2
Jordan	2
Canada	1
Lebanon	1
Tunisia	1

### Top five specialties

Oncology	90
Organ transplant	83
Neurosciences	77
Heart	35
Polyclinics and family medicine	24



International program total collected revenue

**124,550,710**  
**SAR**



# Facilities and **Infrastructure**

KFSHRC continuously assesses, improves, and expands its capabilities and facilities to increase the scope and elevate the standard of care it provides to patients. Throughout 2023, a number of planned upgrades and expansion projects were launched and completed, with further improvements scheduled to be implemented during the coming year.

## **Riyadh**

- The Polyclinics and Family Medicine project is at 75% complete, with a view to full physical completion by the end of 2024.
- Inpatient floor renovations commenced to improve hospital capacity and flow, as well as to ensure compliance with safety standards.
- The Training Center is on its second phase of construction, with progress at 66%; the projected completion is by the second quarter of 2024. The Center will meet our medium-term needs and will be utilized in the context of our proposed major construction program and the internal educational component of our academic strategy.

## **Jeddah**

The Jeddah Mega Project construction continues, with significant progress in the past several months. The building façade is now 70% complete and is expected to be completed by the second quarter of the coming year. The on-site work force has increased steadily to 1,700, and is projected to rise further.

The project is delayed and faces multiple challenges including funding, cash flow and the capacity of the contractor. Actions to address these are ongoing, with the aim of ensuring the completion of the project beyond construction, i.e., installation of medical equipment and furniture.



Polyclinics and Family Medicine Building in Riyadh



Jeddah Mega Project

## Madinah

At KFSHRC – Madinah, we continue to focus on the specialties mostly needed in the region (adult and pediatric oncology), complemented by cardiology, nephrology, obstetrics/gynecology, and ophthalmology. Admissions and visits (both physical and virtual) were up substantially in 2023.

Our newest branch had a very productive year, having been accredited by CBAHI for three years, only following short of one year from official launch. Several other accreditations were obtained from awarding bodies such as Saudi Commission for Health Specialties (SCFHS), Nuclear and Radiological Regulatory Commission, American Heart Association for International Training Centre, and the SCFHS' conferment on residency and fellowship programs.

KFSHRC – Madinah progressed swiftly throughout the year, earning recognitions such as the 2023 Press Ganey Human Experience Award (for outpatient services). This award honors hospitals who have reached the 95<sup>th</sup> percentile. The Madinah Award Foundation named the hospital as one of the top two in the Excellence in Government Performance in Madinah category (for customer service).



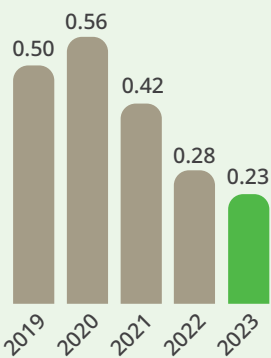
KFSHRC-Madinah campus

# Patient Safety, Quality of Care, and Patient Experience

Our constantly improving services and innovative procedures inevitably increase the number of patients we attract on a daily basis. As a consequence of that rising demand, we must continually revisit and review our practices and monitor satisfaction rates. While the vast majority of quality measures and industry standards are positive, we remain vigilant in every aspect of our operations, ensuring ongoing patient safety and world-class care.

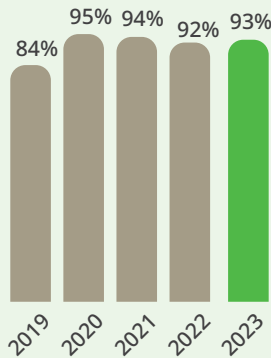
We remain committed to reducing delays and improving our performance in discharge administration. Encouragingly, our efforts have yielded significant progress: the percentage of patients receiving discharge information prior to leaving the hospital has risen from 62% in 2022 to 87% in 2023. Over time, and as the volume of patients consistently rises, our teams endeavor to deliver quality care and meet global standards.

## Pressure Injuries



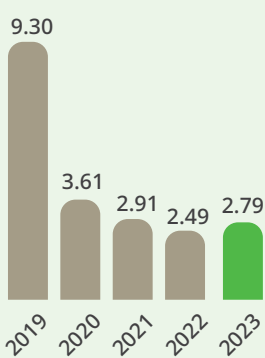
Desired direction: ↓

## Hand Hygiene Compliance



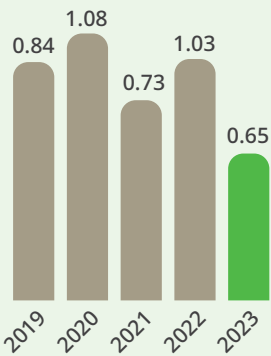
Desired direction: ↑

## MDRO<sup>1</sup> Rate



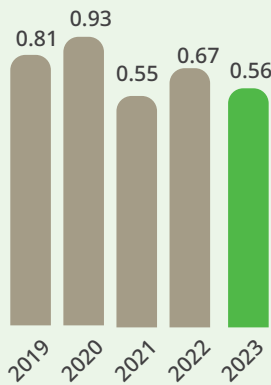
Desired direction: ↓

## CLABSI<sup>2</sup> Rate



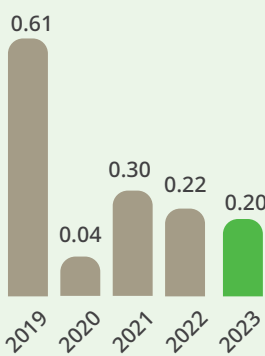
Desired direction: ↓

## CAUTI<sup>3</sup> Rate



Desired direction: ↓

## VAP<sup>4</sup> Rate



Desired direction: ↓

1 Multi-drug resistant organisms; 2 Central Line-associated blood stream infections; 3 Catheter-associated urinary tract infections; 4 Ventilator-associated pneumonia



Zero Harm

Our journey toward zero harm continues to advance. Improvements have been seen in pressure injuries and surgical site infection rates. In terms of the quality and safety indicators, these have shown a remarkable 12.8% improvement in the zero harm index compared to the same period last year.

Zero Harm Index



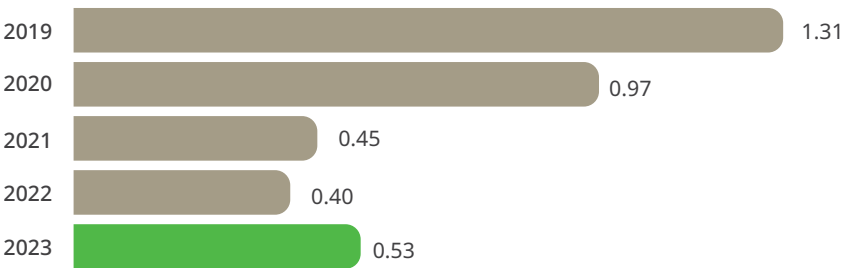
Desired direction: ↓

Number of Safety Reports



Desired direction: ↑

Serious Safety Events Rate (SSER)



Desired direction: ↓

Quality Management collaborated with Joint Commission International (JCI) in November 2023 to host an event that showcased KFSHRC's high-reliability organization (HRO) journey, and to renew its commitment to deliver high-caliber and reliable care to every patient, every time. The conference titled, Quality, Leadership, and the Pursuit of Zero Harm was attended by leaders from the Saudi Central Board for Accreditation of Healthcare Institution (CBAHI), Saudi Patient Safety Center (SPSC), and JCI, healthcare providers, and workers in clinical and non-clinical fields.



## Early Sepsis Detection Project

The Sepsis program is making significant strides in its mission to improve patient outcomes by swiftly and effectively identifying and treating sepsis. The initial rollout to all adult inpatient units was successfully completed. Additionally, integration with the Department of Emergency Medicine (DEM) remains on track for this year, further extending the program's reach.

### Outcomes



#### Early Intervention

Achieved 90% compliance with sepsis screening in adult inpatient units



#### Automated Efficiency

qSOFA<sup>1</sup> score automation significantly reduced alert turnaround time



#### Improved Infrastructure

Machine integration for real-time alerts is nearly complete in Riyadh



#### Standardized Treatment

Empirical antibiotic protocols across three sites, ensuring that clinicians have clear guidelines for different clinical presentations

### Next Steps

1

**DEM  
Activation**

2

**Pediatric  
Expansion**

3

**Data-Driven  
Refinement**

4

**Quality  
Monitoring**



### Quality Management Group (QMG) won four awards in the 4<sup>th</sup> Saudi Patient Safety Center (SPSC) International Patient Safety Conference

1. Improving Patient Safety by Improving Nutrition High Risk Screening Referral for All New Admissions – Nutrition Services, QMG – Corporate
2. The Daily Improvement Coach program: Enhancing Patient Safety through Continuous Improvement – Quality Management, QMG – Corporate
3. Using Rapid Molecular Testing to Improve Antibiotic Stewardship – OTCOE, KFSHRC – Riyadh
4. Embracing the Use of Wound, Ostomy and Continence Championship in Tertiary Care Hospital – Nursing Affairs, KFSHRC – Jeddah

<sup>1</sup> Quick Sepsis Related Organ Failure Assessment

## Venous Thromboembolism (VTE) Prevention Initiative

### Aim

Achieve zero preventable incidents of Venous Thromboembolism (VTE) in the adult inpatient population

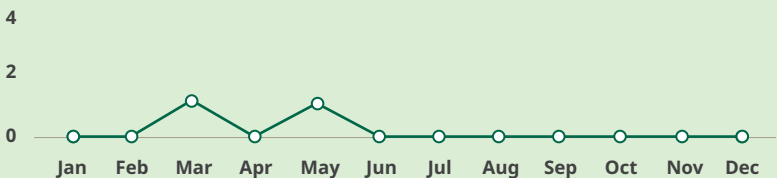
### Methods

Diligent monitoring of the VTE dashboard by nurses, providing real-time feedback to healthcare providers. This nurse-led initiative ensures proper documentation and prompt escalation of issues, if any.

Nurses and physicians receive educational sessions, participate in VTE incident reviews, and offer recommendations and follow-up actions. VTE cases are identified through the Quality Information System as part of monthly audits.

### Number of VTE Preventable Events, 2023

The team's efforts resulted in achieving the target throughout most of the year



## Just Culture Project

Through establishing a just, learning, and accountable culture among healthcare providers and leaders, this initiative aims to improve patient safety, ensure equitable accountability, consistently identify and manage system issues and behavioral choices, enhance proactive error prevention, and implement comprehensive management training.

The implementation of the Just Culture (JC) approach was conducted by systematically identifying incidents applicable to just culture, utilizing the Quality Improvement System (QIS). Managers and leaders are able to monitor staff behavior through various tools and the JC dashboard, which reflects monthly implementation progress. In 2023, approximately 1,300 JC-associated events were recorded across the three sites.





## Our Patients' Experience – A Matter of Utmost Importance

From the first interaction to the last treatment, we recognize that we are meeting and treating people at one of the hardest times in their life. While in our care, the patient's experience – and that of their families' – is of the utmost importance to us.

Our team is focused on delivering healthcare in a way that centers on the perspective of the patients and their loved ones, while promoting a healthy, encouraging environment for caregivers, and addressing the health needs of the surrounding community. We recognize the significance of involving our patients in their experience throughout the healthcare journey. We are dedicated to providing compassionate care and comprehensive information to support them every step of the way.

### Continuing to Deliver on Our Commitment of Care

KFSHRC continues to rank among the best national facilities in patient experience as a testament of our lasting commitment to excellence. The following are some of the metrics we closely monitor as a compass to ensure that we continue to deliver on our patient experience promise. These results are **based on patient experience surveys data collected, analyzed, and reported through Press Ganey as a third-party**. Press Ganey is global renowned leader in this field, working with over 41,000+ healthcare providers, including leading 3,100+ healthcare systems internationally, creating the most robust comparative databases in class for KFSHRC.

We strive for continuous improvement; as such, we continue to benchmark our performance to leading facilities internationally, to learn from what others are doing so that we improve our care, illustrating our unwavering dedication to patient experience.

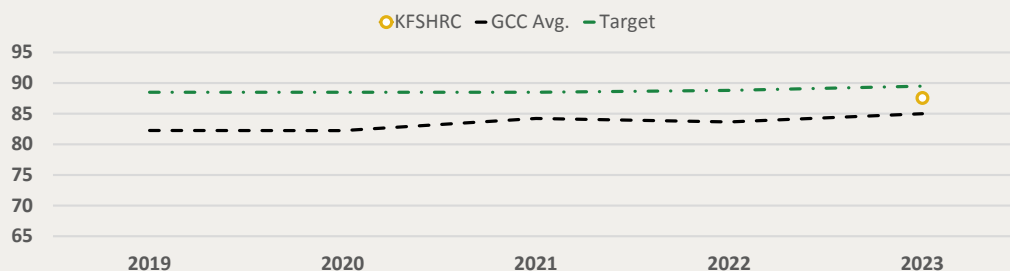
### Patient Experience Survey Results

#### Adult – Inpatient

##### Mean Score

**87.58**

GCC Average\*: 85.00



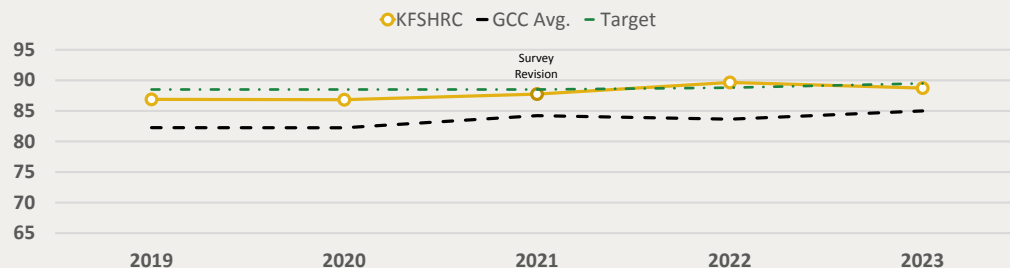
KFSHRC started using the Press Ganey standard inpatient survey in place of the Hospital Consumer Assessment of Healthcare Providers and Systems HCHAPS survey since January 2023.

#### Pediatrics – Inpatient

##### Mean Score

**88.74**

GCC Average\*: 85.00



The survey instrument was revised in 2021.

Source: Press Ganey

\*GCC Benchmark: Based on Press Ganey patient experience survey, including 350+ healthcare facilities in the GCC countries.

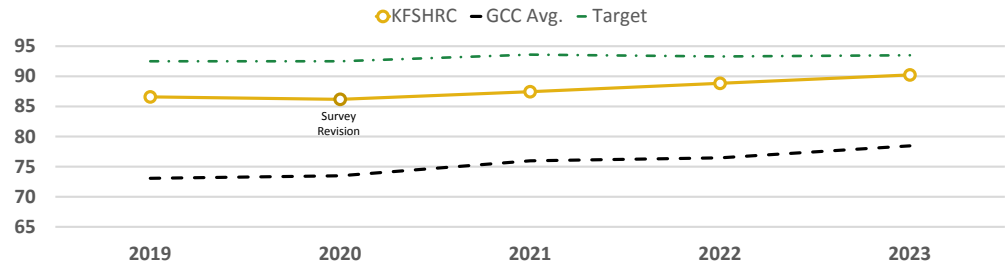
## Outpatient

### Mean Score

**90.24**

GCC Average\*: 78.46

The survey instrument was revised in 2020.



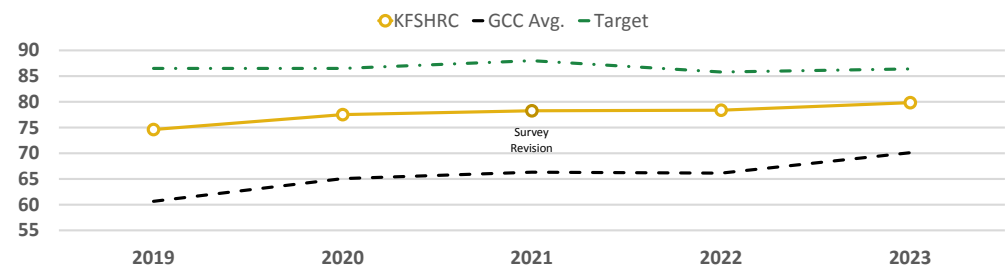
## Emergency

### Mean Score

**79.84**

GCC Average\*: 70.11

The survey instrument was revised in 2021.



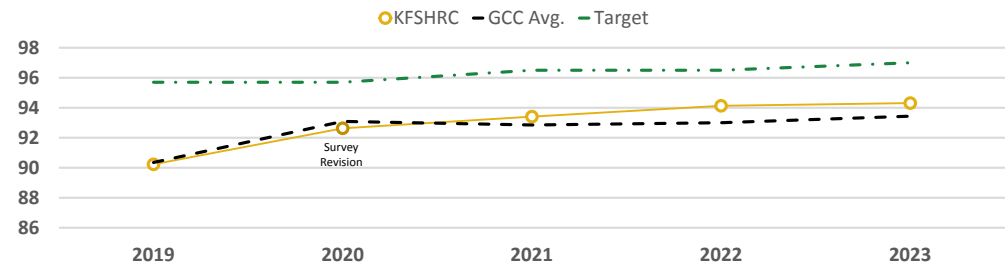
## Ambulatory Surgery

### Mean Score

**94.31**

GCC Average\*: 93.44

The survey instrument was revised in 2020.



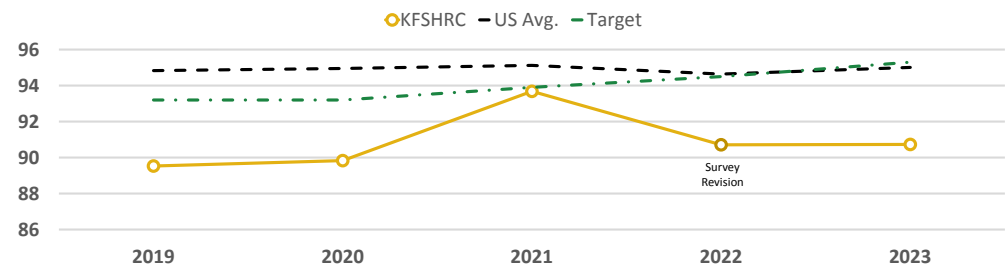
## Outpatient Oncology

### Mean Score

**90.73**

US Average\*\*: 95.01

The survey instrument was revised in 2022.



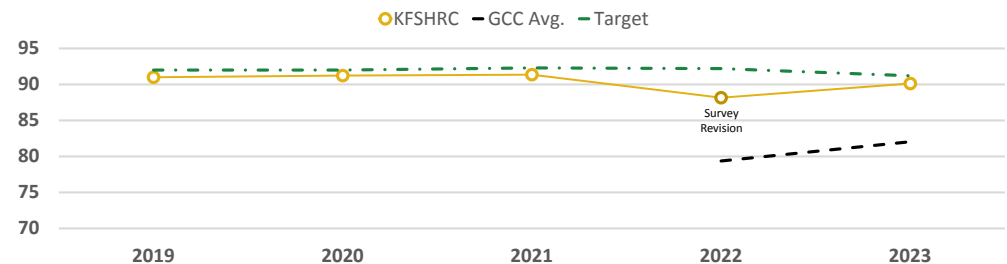
## Dental Services

### Mean Score

**90.13**

GCC Average\*: 82.04

The survey instrument was revised in 2022.



Source: Press Ganey

\*GCC Benchmark: Based on Press Ganey patient experience survey, including 350+ healthcare facilities in the GCC countries.

\*\*US Benchmark: Based on Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey results, including 1,200+ healthcare facilities. No GCC benchmark available.

Improving patient experience, as with any journey to excellence, is without an end; the bar is always being raised, both by us and by our patients.

**Experience Ambassadors –  
Class of 2023**

Completed targeted patient experience training in support of our strategic objective: to deliver world-class customer experience, safety and quality of care to our patients



**Wayfinding Project**

Collaborative approach with three departments to create a simple and creative navigation method for patients and their families

**Scholastic Program**

Expanded the program to KFNCCC, with an increase of 386%, ensuring our patients' studies were not interrupted during their treatment journey



**Volunteer Program**

Over 100k volunteering hours, equivalent to ~SAR 4 Mn; KFSHRC's volunteer platform aims not only to enrich experience at humanitarian level, but also instill the value of selflessness, build leadership skills, and gain pride and identity in a well-rounded environment

Overall inpatient practice

**87.84**

(PG<sup>1</sup> international mean average: 85.17)

Overall outpatient practice

**90.24**

(PG<sup>1</sup> mean average: 92.89)

Environment cleanliness

**94.35**

(PG<sup>1</sup> international mean average: 95.86)

1 Press Ganey



## Taking Our Patients' Feedback to Heart

Every year we receive over 100,000 patient experience surveys that serve as a guide to our improvement projects. After leaving the hospital, our patients receive a survey from a third party to confidentially share their experience. We read every survey and comment to help improve our services. Our patients' stories are an inspiration for us and we will never tire of hearing them. We pride ourselves in helping our patients through their healing journey and put every effort into building an enduring relationship that lasts a lifetime. We relish the comments and reviews we receive through our patient experience program; these serve to fuel us to strive harder and exceed our patients' expectations.

“

“Having been admitted to King Faisal Specialist Hospital & Research Centre, I can say the level of care was exceptional. The staff went above and beyond to ensure I was comfortable and informed.”

“The empathy and support provided by the nursing staff during my treatment made a significant difference in my recovery journey.”

“I appreciated the clarity with which all procedures were explained to me, allowing me to be an active participant in my treatment decisions.”

“We would like to express our gratitude for the high standard of care and attention provided during our difficult time.”



Moaath is an only child who is being raised by his mother. He suffers from a genetic mutation, which caused a delay in his growth and deformity in his hands, feet, and facial features. This had affected Moaath's confidence, causing him to hide his hands and shy away from cameras.

KFSHRC learned from his mother about his admiration of the football team, Al-Hilal, and how much he wished to meet the players. With the assistance of our Social Services department, Moaath and his mother were connected with the Omnia organization, which helped make Moaath's wish come true. Moaath was brought to Al-Hilal's stadium, where he played with the team and took photos with them. Al-Hilal uploaded Moaath's photos on their official website. The entire experience significantly improved Moaath's confidence and mental state, which in turn gave his devoted mother priceless joy.

# Collaborations and Partnerships

In order to progress, evolve and lead regional healthcare from the front, KFSHRC has always realized that strategic partnerships are crucial not only in achieving its daily mission, but also fulfilling its vision for the future.

In nurturing relationships to enhance patient well-being and elevate care, we continue to unlock value for the organization and provide greater opportunities for innovation. In addition to existing collaborations, a number of memoranda of understanding and agreements were signed in 2023 to support our efforts to deliver medical progress, generating a new era of quality care for all.



## **BGI Group**

Establishment of a joint innovative center to study innovative technologies and informatics solutions in genomics and precision medicine



## **BMJ Publishing Group Limited**

Subscription agreement for various learning and best-practice tools and resources



## **Gilead Sciences Ireland UC**

Research, scientific exchange, and patient access to innovative therapies



## **Houston Methodist Global Healthcare Services (HMG)**

Development of education and training projects for patient care



## **Illumina Cambridge Ltd**

Framework to support genomic innovation and development at KFSHRC



## **King Hussein Foundation and Cancer Center (KHCC)**

Provision of applied behavior analysis courses to improve the services provided by the Autism Center



## **Northwestern Memorial Healthcare**

Education and training for healthcare professionals, clinic services and medical opinions



## **Cerner Middle East LTD**

Acceleration of the uptake of the electronic medical record software technology to progress digital transformation in Saudi Arabia



## **Princess Noura bint Abdulrahman University**

Collaboration to further postgraduate studies, including scientific research, student training and scholarships



**Roche Products Saudi Arabia (RPSA)**

Value-based healthcare implementation using pilot products to build digitalized and sustainable infrastructure within KFSHRC



**Saudi Food & Drug Authority (SFDA)**

Acceleration of obtaining approvals to conduct clinical trials, aiming to improve processes for clinical trial research projects



**Saudi National Health Institute (NIH)**

Support for transitional research and clinical trials to contribute to overall health and quality of life



**Saudi Society for Blood Disorder (SSBD)**

Conduct of medical educational activities, and collaboration in research, workshops and conferences



**Taibah Valley**

KFSHRC-led training and education services through technology, and engagement in training projects to produce agreed-upon products



**University of Nevada**

Provision of applied behavior analysis courses to improve the services provided by the Autism Center



The signing of the Memorandum of Understanding (MoU) between KFSHRC and Taibah Valley Corporation during LEAP23 conference



# Research, Education and **Training**

## KFSHRC Pride Aboard Axiom Mission 2 on the International Space Station (ISS)

One of KFSHRC's researchers was selected as a mission specialist and went onboard Axiom Mission 2. Rayyanah Barnawi, who has had a decade of experience in cancer stem cell research, became the first Saudi female astronaut to space. Rayyanah and fellow astronaut Ali Alqarni both represented the country on this private mission.

"This is a great opportunity for me to represent the country, to represent their dreams," Rayyanah stated in a pre-launch conference. She also spoke about how she looked forward to the mission, and hoped that this serves as inspiration to many, especially the children. "We're very excited for the part that will be engaging with kids from all over Saudi Arabia and all over the world, talking about our experiments, talking about space and having them trigger their curiosity towards space."



Saudi officials and astronauts with HRH the Crown Prince; photo courtesy of Saudi Space Agency

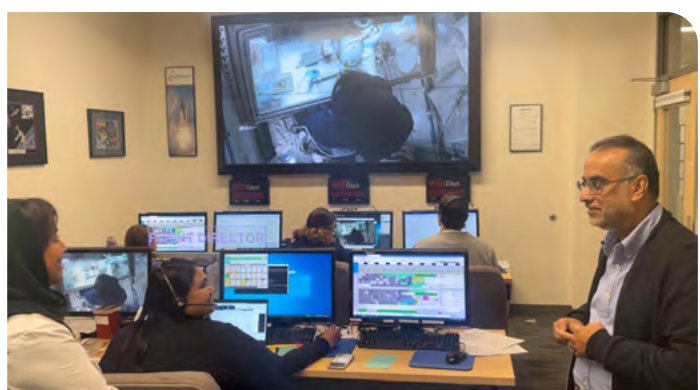
## Space Biomedical Research and the First Saudi Space Mission

KFSHRC is committed to advancing human health through innovative research, including research in the unique environment of space. In collaboration with the Saudi Space Commission, the KFSHRC scientific team, participated in the first Saudi mission to space by conducting a comparative investigation onboard the International Space Station (ISS).

Four research experiments in cell sciences designed by KFSHRC were conducted at the ISS:

- Immune cell response to inflammation in space
- Monitoring the activity of inflammatory genes in immune cells over time
- Monitoring the changes in ribonucleic acid (RNA) age during space missions
- Simulating the inflammatory response to drug treatment

The research team comprised of Dr. Khalid Abu Khabar, research lead, and co-investigators, Dr. Wijdan Alahmadi and Dr. Edward Hitti. KFSHRC's Space Medicine research team is analyzing the data generated, and the results will be published in 2024.



Dr. Khalid Abu Khabar and Dr. Wijdan Alahmadi with the flight director and operations team on launch day



Saudi Arabia's Ali Alqarni and Rayannah Barnawi were among the four-person crew aboard the Ax-2 mission. Rayannah, KFSHRC biomedical researcher, is the first Saudi female astronaut in space

### **KFSHRC research team develops a potent anti-cancer drug**

The invention relates to the synthesis of a cisplatin analogue consisting of an association between cisplatin ( $\text{PtCl}_2(\text{NH}_3)_2$ ) and eugenol ( $\text{C}_{10}\text{H}_{12}\text{O}_2$ ). The novel molecule called eugenoplatin  $\text{PtCl}(\text{NH}_3)_2\text{C}_{10}\text{H}_{12}\text{O}_2$  showed potent anti-cancer activities against various types of cancer cells, including triple-negative breast cancer, ovarian cancer, and leukemia. The effect of the novel molecule is 10 to 20 times more potent than the currently used molecules for the treatment of these pathologies: cisplatin, carboplatin, and cytarabine (Patent: US Patent Application No. 18227,094).

### **Research & Innovation group's work plays a role in COVID-19 patients' care**

In 2023, we have successfully sequenced and analyzed 492 COVID-19 patient samples. Our surveillance system played a crucial role in identifying and reporting variants of concern to the Infection Control and Hospital Epidemiology department. In November, we reported the new variant JN.1 within our Hospital. Moreover, our generated data is utilized by the Hospital's Formulary and Therapeutics Committee (FTC) to make informed decisions regarding the procurement of COVID-19 drugs that effectively target the circulating variants at KFSHRC.

### **Research team succeeds with in-house tests for CMV and HIV drug resistance**

The Department of Infection and Immunity has collaborated closely with infectious diseases consultants to establish in-house diagnostic tests, eliminating the need to send patient samples to Mayo Clinic. The Research and Innovation team has successfully developed in-house tests for cytomegalovirus (CMV) and HIV drug resistance, enabling us to identify mutations that confer drug resistance to the medications used at KFSHRC.



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"Given the distinctive patient segment at KFSHRC, our in-house cytomegalovirus (CMV) drug-resistance test delivers rapid and precise diagnostics, eliminating the need to outsource testing and ensuring optimal patient care for our patients."

—Dr. Fatimah Alhamlan, Senior Scientist, Infection and Immunity





Photo courtesy of Saudi Press Agency

### Cyclotron and Radiopharmaceuticals Department turns 40

The Cyclotron and Radiopharmaceuticals department was one of the first established in the Research Centre in 1978, following the installation of the first medium-energy cyclotron in the Middle East region: a CS-30 with a capacity of 26 mega electron volts (MeV). Five years later, the journey of producing radiopharmaceuticals in Saudi Arabia began.

The department has manufactured over 650,000 doses of 30 distinct diagnostic and therapeutic radioactive pharmaceuticals since 1983, supporting 50 hospitals in Saudi Arabia. The department maintains its goals by enforcing stringent quality control standards, adhering to Good Manufacturing Practices (GMP), national guidelines set by the Saudi Food and Drug Authority (SFDA) and the Nuclear and Radiological Regulatory Commission (NRRC), international standards, and ISO 9001 accreditation. In addition to being a service provider, the Cyclotron and Radiopharmaceuticals department is considered an international educational, training, and research center recognized by the International Atomic Energy Agency (IAEA).

The Cyclotron and Radiopharmaceuticals department thus makes for a distinctive facility—one that has not only provided exceptional service to the Kingdom over the last 40 years, but also continuously worked towards the ambition of making Saudi Arabia self-sufficient in terms of its clinical radiopharmaceutical needs.



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“Being the largest facility in the manufacturing of a variety of radiopharmaceuticals for the past 40 years, our service to the Kingdom has been making a difference in patient care.”

—Dr. Subhani Okarvi, A/Chairman, Department of Cyclotron and Radiopharmaceuticals

The Research and Innovation (R&I) group supports innovative translational biomedical research that is aligned with the Hospital's mission of providing world-class health services to our patients. Our researchers perform cutting-edge research addressing important diseases such as cancer, cardiovascular diseases, environmental health, and infectious diseases. We are also making huge strides in developing cell therapies, tissue engineering, and nanotechnologies to come up with innovative diagnostics and therapeutics. Moreover, R&I service departments continue to provide superb specialized services that enhance patient care outcomes.

#### Total organizational publications

# 1,012

(2022: 1,181)

#### Approved research proposals

# 684

(2022: 417)

#### Patent applications

# 13

(2022: 4)

#### Research grants from third parties to support research

# SAR 1,494,306

(2022: 1,575,809 SAR)

#### Filed patents:

1. Molecular Identification of Compounds Targeting Tristetraprolin (TTP) and Phosphorylation, US Patent Application No. 18/324,760
2. Molecular Identification of Compounds Targeting Tristetraprolin (TTP) and Phosphorylation, European Patent Application No. 23 175 751.9
3. Phosphorylated Tristeraprolin as a Biomarker and Therapeutic Target for Antiaging Drugs, US Patent Application 18/324,563
4. Phosphorylated Tristeraprolin as a Biomarker and Therapeutic Target for Antiaging Drugs, European Patent Application No. 23 175 662.8
5. Cisplatin analogue with potent anti-cancer and cancer stem cell-targeting effects and synthesis thereof, International Patent Application PCT/EP2023/070805
6. Cisplatin analogue with potent anti-cancer effects and synthesis thereof, US Patent Application No. 18/227,094
7. Cisplatin analogue with potent anti-cancer effects and synthesis thereof, European patent application No. 22187899.4
8. Composition for radiation dosimetry and uses thereof, European patent application No. 23198620.9
9. Composition for radiation dosimetry and uses thereof, US Patent Application No. 18/370,556
10. TTP Phosphorylation for the Identification of Personalized Medicines, US Patent Application No.: 18/181,890
11. Method of preparing estradiol derivatives by solidphase synthesis, US Patent Application No. 18/378,303
12. A combination of a Livin inhibitor and an inhibitor of the interaction between PD-1 and its ligand PD-L1 or their intracellular downstream signaling pathways, European Patent Application No.: 23205612.7
13. A method for determining the activity of a drug or drug candidate under conditions of microgravity. US Provisional Patent Application No.: 63/608,548, 11 December 2023

#### Granted patents:

1. TTP Phosphorylation as a biomarker in targeted therapy: US Patent Application No. 16/710,455, US Patent No. 11,648,251
2. VCP and factor H as viral entry inhibitors, US Patent Application No.16/684,630, US Patent No. 11,707,505 B2
3. Method for generating human multipotent mammary stem cells from normal primary breast luminal cells, US Patent Application No. 11834673, US Patent No.11,834,673
4. Set of genes for use in a method of predicting the likelihood of a breast cancer patient's survival, US Patent Application No. 15/424,797, US Patent No. 11649504

## Education and Training

KFSHRC continues to dominate Saudi Arabia's medical education platforms, playing a role in the training of 20% of the country's physicians and retaining its status as the preferred choice with an 89% residency match rate. In conjunction with Alfaisal University, where students can gain degrees in biomedical and health sciences, KFSHRC consistently provides learning support to the nation's specialist physicians and healthcare providers.

Education and Training commenced the year with high ambitions aligning all sites operationally and functionally. In the area of medical education, KFSHRC established 20 new fellowship programs, and launched the KFSHRC aspired research program (KARP) with a total of 40 research proposals developed by our young physicians. ACGME-I agreements were signed during 2023 to include five residency program accreditations. The Nursing Oncology Diploma program was established for the first time in Madinah region by our Madinah branch. Moreover, in order to ensure delivery of the best healthcare practice by our trainees, simulation-based training packages were established as extra curricula while the Simulation Center in Jeddah was established.

In collaboration with Alfaisal University, the Education and Training team introduced the mini MBA program for KFSHRC staff, with the first batch graduating in 2023.

### Residency programs

**70**

(2022: 64)

### Fellowship programs

**104**

(2022: 101)

### Residents

**859**

(2022: 777)

### Fellows

**463**

(2022: 411)

### Graduated residents and fellows

**374**

(2022: 363)

### Nursing and allied health trainees

**1,281**

(2022: 1,232)



The Undergraduate Medical Education section held the annual orientation for 191 Alfaisal University students as part of their Clerkship Training program



In addition, KFSHRC offered courses to institutions across Saudi Arabia. To facilitate this, we introduced the apprenticeship on-the-job training programs for external applicants to improve their skills through hands-on training. This will be overseen and delivered by highly experienced KFSHRC professionals across more than 39 fully designed courses in a range of clinical disciplines.

As KFSHRC continues to recruit and maintain the most accomplished, talented, and passionate professionals, it is imperative to sustain ongoing programs of education and learning. Progressing as an individual drives the progress of a team and, ultimately, the well-being of a patient.



**Advanced Stroke Life Support training:**  
24 healthcare professionals certified as providers and 24 participants certified as instructors



**Simulation Center hosted the first Alfaisal University Neurological Surgery Bootcamp**



**Sponsorship of conducting animal lab training sessions for surgical trainees at the Comparative Medicine facility to help build skills, confidence, and proficiency to perform various surgeries**



**More than 350 employees trained through customized educational programs, skills improvement courses, and preceptorship training programs to meet departments needs, courtesy of Training and Development division**

### Training Initiatives: KFSHRC Leadership Program

The Education and Training group successfully launched the organization-wide Leadership program targeting 40 directors, heads, managers and supervisors through the Health Leadership Academy, Saudi Commission for Health Specialties (SCFHS).



Aimed to enhance managerial abilities, encourage decision-making, and boost performance as part of the transformation process



Featured in-depth coverage of critical leadership disciplines, including conflict resolution, tactical planning, communication skills, and change management.



Provided various training sessions that were individually or in groups; also featured case studies, online training initiatives, and interactive coaching sessions

In collaboration with Human Capital, the Education and Training team organized the Leadership program 2023 closing ceremony, simultaneously in Riyadh, Jeddah, and Madinah. A total of 114 leaders completed the program.



Leadership Program 2023 closing ceremony

# Digital Health

At KFSHRC, we are keenly aware of the rapid and profound changes taking place in our world. The emergence of advanced technologies, digital transformation, and artificial intelligence (AI) are shaping every facet of our lives, including healthcare. As pioneers and innovators in the field, we take pride in leading the way in this digital healthcare revolution.

We recognize that embracing digital innovation is crucial for improving patient care, enhancing efficiency, and achieving better health outcomes. By leveraging cutting-edge technologies, such as AI and digital platforms, we have started to provide personalized and precise care to our patients.

KFSHRC continually explores new possibilities and pushes the boundaries of what is possible in the realm of healthcare technology. By staying at the forefront of this digital revolution, we are dedicated to delivering exceptional healthcare services that meet the evolving needs of our society and make a lasting impact on the healthcare industry.

## Digital Highlights in 2023

### Building Generative AI Capabilities for Prognosis Notes

Use of a powerful large language model (LLM) to streamline chart review in transplant clinics; the LLM extracts key data from medical histories, condensing it for efficient summarization.

### Reduction of Heart Failure Readmission Rate

Aims to predict readmissions among heart failure patients using machine learning; involved the development of a predictive model that can identify patients who are at high risk of readmission.

### Prescription Volume Forecasting in Jeddah

Analysis of historical prescription data to identify patterns and factors influencing medication volumes; advanced forecasting models with AI enhance accuracy, aid in planning and medication availability, and improve decision-making for optimal resource allocation within the organization.

### AI-Based Assessment for Pulmonary Fibrosis Progression

AI product is delivered as an endpoint, integrated with PACS to seamlessly receive/send CT scans and a web tool that illustrates predictions.

### AI Breast Cancer Risk Assessment

A mammography-based model designed to predict risk at multiple time points, leverage potentially missing risk factor information, and produce predictions that are consistent across mammography machine and to formulate five-year cancer risk predictions and link the risk scores with actual BIRADs diagnosis to detect the probabilities of occurrences of breast cancer.

### Bone Marrow Transplant Prognosis

Predicts the post-BMT prognosis, identifying patients at high risk of early complications and determining their eligibility for outpatient transplantation.

### Pharmacy Patient Flow Management Optimization

New queue management system integrated with the patient (EMR) in ambulatory care pharmacy areas, allowing patients to self-check in, using kiosk machines. Six months post-implementation achieved a 90% service rate for patients within less than 30 minutes.



### First Robot Employee: “Nour R1”

Featured in Arab News, Nour R1 embodies cutting-edge technology that aligns with our commitment to digital innovation, as well as the enhancement of services to dedicated staff by allowing them to focus on core responsibilities while enjoying the convenience and efficiency brought by Nour.

### Leveraging Technology for Pharmacogenomics

A pharmacogenomics-driven program for improved clinical care, focusing on enhancing healthcare providers’ capacity to utilize genetic information by implementing a pharmacogenomics profiling order and CDS alerts in ICIS.

### Smart On-call Room Management Solution

Single, centralized, and automated system that manages the booking process during residents’ and fellows’ on-call duties; electronic keys are runtime QR codes, shared through a variety of channels for ease of accessibility.

### Clinical Pathways Program Phase 2

Successful completion of 16 projects in 2023, resulting in improved quality and key performance measures; 4,118 pathways were utilized across the organization, a 35% increase from the previous year.



### Project Management Institute (PMI) Technology Project of the Year

The KFSHRC Patient Flow Command and Control Center Project was honored with third place in the PMI Technology Project of the Year category by the Project Management Institute (PMI) KSA. The KFSHRC CEO also showcased the Patient Flow Command and Control Center project as a keynote along with its tangible benefits during the Oracle Health Conference 2023 in Las Vegas, USA.

### CHiME’s Digital Health Most Wired Hospital Award (Stage 9)

The CHiME Digital Health Most Wired is an annual survey that assesses the use of information technology (IT) in healthcare organizations across the world, conducted by the College of Healthcare Information Management Executives (CHiME). Organizations that achieve a high level of performance are considered to be leaders in the use of IT to improve patient care and operational efficiency.

### Specialized Professional Program (SPP) Excellence Award

The Saudi Commission for Health Specialties (SCFHS) recognized KFSHRC for its outstanding coordination and delivery in two distinct six-week applied AI programs. By equipping healthcare professionals with the necessary expertise, we aim to drive innovation and enhance patient care through the power of AI.

### KLAS Research EHR Satisfaction Survey

The KLAS Outreach Electronic Health Record (EHR) Satisfaction Survey is a survey that measures the satisfaction of healthcare organizations with their electronic medical record (EMR) systems. KLAS Research, an independent research and consulting firm that specializes in the healthcare IT industry, conducts the survey.

The KLAS Outreach EHR Satisfaction Survey is based on interviews with healthcare professionals from a variety of disciplines, including physicians, nurses, and administrators. The survey assesses healthcare organizations' satisfaction with their EMR systems in a number of areas, including functionality, usability and reliability.

**KFSHRC ranking in the 98<sup>th</sup> percentile** is particularly noteworthy as the survey **compares 291 hospitals** across North America, Asia/Oceania, Europe and the Middle East. KFSHRC's high KLAS Outreach user satisfaction score **demonstrates** to potential employees that **KFSHRC is a great place to work and that it is committed** to providing its healthcare professionals with the tools and resources they need to succeed.

### Top Trending Speaking Session at Gartner IT Symposium

At Gartner IT Symposium | Xpo 2023, Digital Saudi: AI-Powered Patient-Centered Healthcare was voted as the top session. With patient-centered care at the forefront, KFSHRC demonstrated how AI has empowered its healthcare professionals to make informed decisions, improve diagnoses, improve patient satisfaction, and personalize treatment plans.

### Qiyas

KFSHRC has achieved Qiyas score of 89.88% in 2023, as part of the Digital Transformation Measurement initiative led by the Saudi Digital Government Authority. This achievement reflects our commitment to driving the success of the government sector in its digital transformation journey and aligning with the directives for KSA Vision 2030 towards digital transformation.

Qiyas result is

# 89.88%

within the integration stage

Ranked

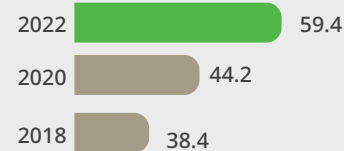
# 14<sup>th</sup>

among all participating government organizations

The beneficiaries Digital Services Satisfaction rating is

# 4.6/5

### KFSHRC physicians' net EHR experience score over three years



### KFSHRC nurses' experience score placed us at number two out of 291 institutes in 2022





## LEAP2023

KFSHRC showcased digital health technologies that will drive the future of the healthcare sector under three pillars: operational excellence, patient experience, and quality of care.

### Digital Health Conference

#### Applied AI in Healthcare

In collaboration with esteemed organizations and renowned experts in the field of AI, KFSHRC successfully hosted its inaugural Digital Health Conference (DHCon).

With a daily attendance of over 1,000 individuals, DHCon provided a vibrant platform for networking, showcasing cutting-edge AI innovations, and fostering collaboration among professionals in the field.

#### The SPInE initiative

The SPInE (Strategic Partner for Innovation and Excellence) initiative was launched at the DHCon with an aim to boost innovation and accelerate digitalization in healthcare. SPInE aspires to establish an open, interoperable platform that gathers healthcare data, tools, and algorithms.





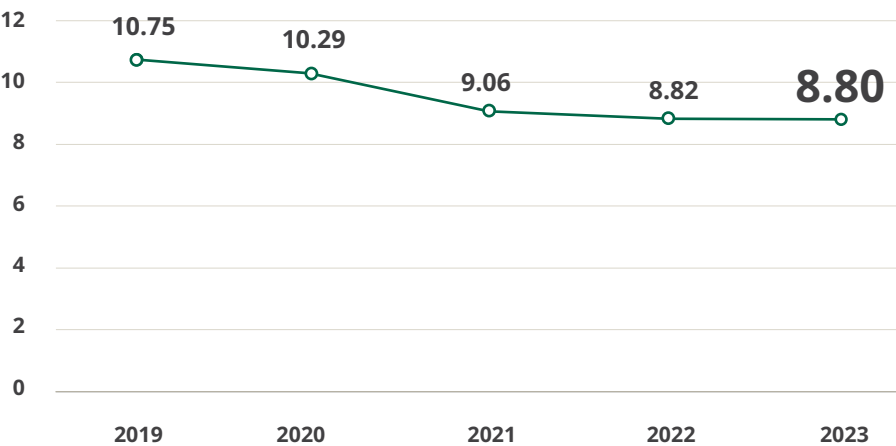
# Efficiency, Value, and Sustainability

## Supply Chain and Efficiency

Demand continues to grow for access to KFSHRC's widely recognized specialist tertiary services in all locations across the Kingdom. As a result, we are focusing on delivering care efficiently, minimizing the length of stay for inpatients to improve outcomes, and delivering more care in outpatient and virtual settings where most appropriate.

We have also **reduced the incidence of zero stock items from 10.5% to under 6%**, thereby increasing stock availability to over 94%, while also **improving inventory turnover by 10% to 2.7 times per annum**.

### Average Length of Stay (ALOS), in days



### Efficiency

DRG<sup>1</sup> adjusted Average length of stay (ALOS)

**10.74**

(2022: 11.25)

Bed occupancy rate

**84.4%**

(2022: 82.6%)

### Operating Room

Cancellation rate

**7.0%**

(2022: 8.0%)

Utilization rate

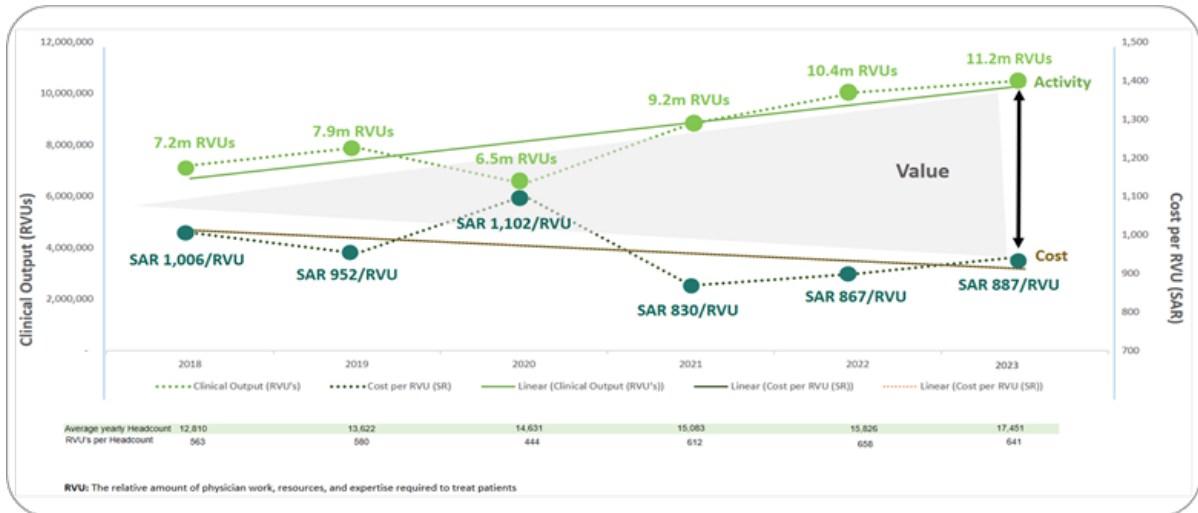
**85%**

(2022: 77.8%)



<sup>1</sup> Diagnosis-related group

By increasing efficiency and reducing costs, KFSHRC has been treating more patients and delivering better outcomes at less than it cost six years ago, despite medical cost inflation and commissioning a major new hospital in Madinah. This additional 'value' delivered by KFSHRC continues to grow, as shown in the diagram below:



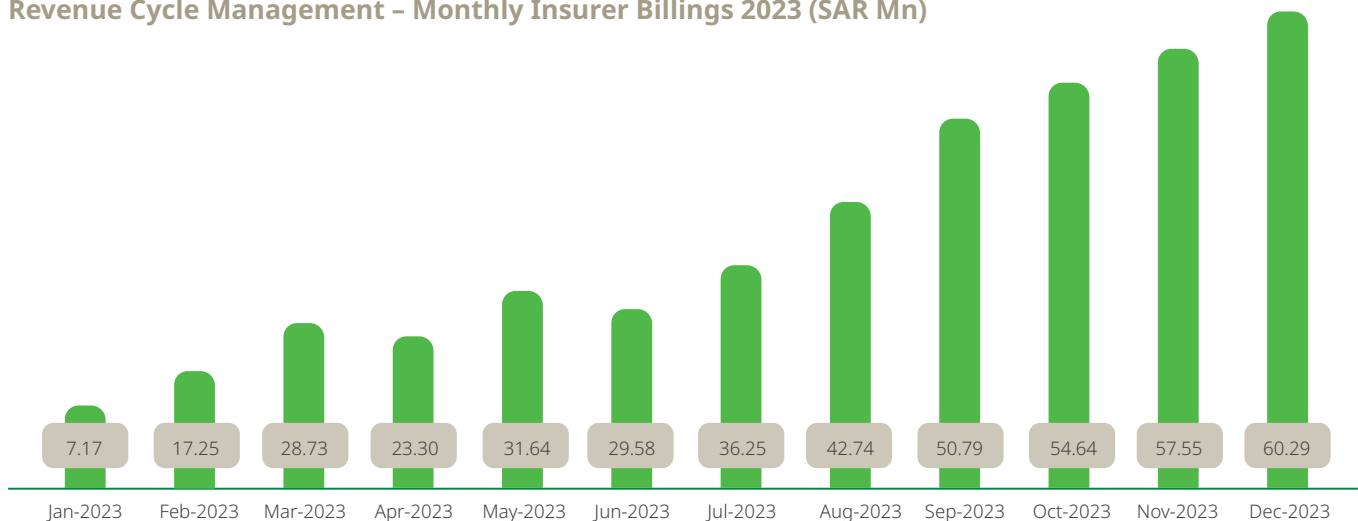
## Revenue Cycle Management (RCM)

The running costs and capital spending of KFSHRC in 2023 was largely funded by the Ministry of Finance (MoF). Cash collected from private payers, insurers, international patients, and sales of radiopharmaceuticals and sophisticated tests to other hospitals contributed to hospital revenue.

Our financial and clinical teams continue to expand our revenue cycle capabilities; our invoicing of insurers increased from approximately SAR 2 million per month in 2022, to more than SAR 60 million by the end of 2023, and the number of claims made on insurers increased by 2,590% in comparison to the baseline of 2022.

In 2024, as we begin the transition to an independent nonprofit foundation, we anticipate growth in the cash collected from non-government. Beginning in 2025, we expect government funding to start transitioning to payments based on the number of patients treated for the various conditions in which KFSHRC is the national specialist referral center, completing our transition to independent status.

## Revenue Cycle Management – Monthly Insurer Billings 2023 (SAR Mn)



According to the Saudi Government Authority for Spending Efficiency (EXPRO), KFSHRC saved the Kingdom a total of SAR 6.199 Bn in 2023 as a result of the following major initiatives:

	(SAR billions)
• Treating more patients and discharging them earlier, by reducing the length of time patients remain in hospital, waiting for treatment or discharge or in post-surgical rehabilitation	1.595
• Saving and improving the lives of Saudis by making it possible for them to receive healthy transplanted organs in the Kingdom	3.988
• Conducting complex tests more quickly in the Kingdom, enabling patients to be treated faster, rather than sending their samples to North America or Europe for testing	0.552
• Reducing waste and improving environmental and water conservation	0.064
<b>Total savings</b>	<b>6.199</b>



KFSHRC is one of the institutions recognized for significant participation in EXPRO's platform for sustainability of spending efficiency

Subsidiaries and Investments

The King Faisal Specialist Hospital International Holding Company (KFSHI), the investment arm of KFSHRC, increased its revenues by 18% over the previous year, highlighting the essential role KFSHI will play in future income streams.

KFSHI's strategy encompasses a phased approach to align with the overarching transformation plan of KFSHRC. The initial focus is on internal organization and strengthening core operations in 2024, paving the way for accelerated growth in 2025 to 2028.

2024 Themes



Strengthen core operations and organizational enhancement



Aim to grow steadily at the market rate, while preparing a solid foundation for 2025



Streamline operations for efficiency gains and cost optimization



Develop and implement training programs to enhance employee skills




Enhance corporate governance and risk management practices



Establish key performance indicators to measure progress



	Products and Services	2023 Activities
 <p><b>Saudi Diagnostic Limited</b></p>	<ul style="list-style-type: none"> <li>Licensed laboratory</li> <li>Advanced genetic tests</li> <li>Metabolic and toxicology tests</li> <li>Newborn screening</li> <li>Reference laboratory</li> </ul>	<ul style="list-style-type: none"> <li>Awarded SAR 45.3 Mn from NUPCo tenders</li> <li>Launched new services: Fox, food allergy test, autoimmunology, flow cytometry expansions</li> <li>Achieved CBAHI accreditation</li> <li>Generic parentage testing for 1,500 camels during Camel Festival</li> </ul>
 <p><b>Al Takassusi General Limited</b></p>	<ul style="list-style-type: none"> <li>RCM and Commercialization of KFSHRC applications/HIS</li> <li>Radioactive isotopes, Telemedicine, CSSD operation/consultation</li> </ul>	<ul style="list-style-type: none"> <li>Forged exclusive partnership with Cephal and Cisco</li> <li>Launched SAR 16 Mn Weqaa Project</li> <li>Earned the second grade of commercial Saudi classification</li> <li>Produced 80% of the KSA radiopharm market</li> </ul>
 <p><b>Allergotek</b></p>	<ul style="list-style-type: none"> <li>Manufacturing and distributing medicine and medical products</li> <li>Diagnosis and treatment of allergic immune diseases</li> </ul>	<ul style="list-style-type: none"> <li>Achieved 45K in public hospitals, SAR 15 Mn market share</li> <li>Engaged in strategic partnership with Osyska for ICU devices</li> <li>Launched new unique product, Allergotek ORALTEK</li> <li>Sold out new launches by third quarter of 2023</li> </ul>
 <p><b>Mahd Alroya</b></p>	<ul style="list-style-type: none"> <li>Real estate investment</li> <li>Real estate development and services</li> <li>Hospitality</li> </ul>	<ul style="list-style-type: none"> <li>Launched revival and business debt efforts to exploit the subsidiary in the services sector – particularly the InterContinental Hotel</li> </ul>
 <p><b>Al Takassusi Alliance Medical Co</b></p>	<ul style="list-style-type: none"> <li>Complex and non-complex imaging</li> <li>Network exploiter and radiology logistics expert</li> <li>Teleradiology en masse</li> </ul>	<ul style="list-style-type: none"> <li>Established company and organized structure</li> <li>Activated sites and business plan</li> <li>Realized cash flow</li> <li>Launched the first PPP healthcare project in the country</li> </ul>



03





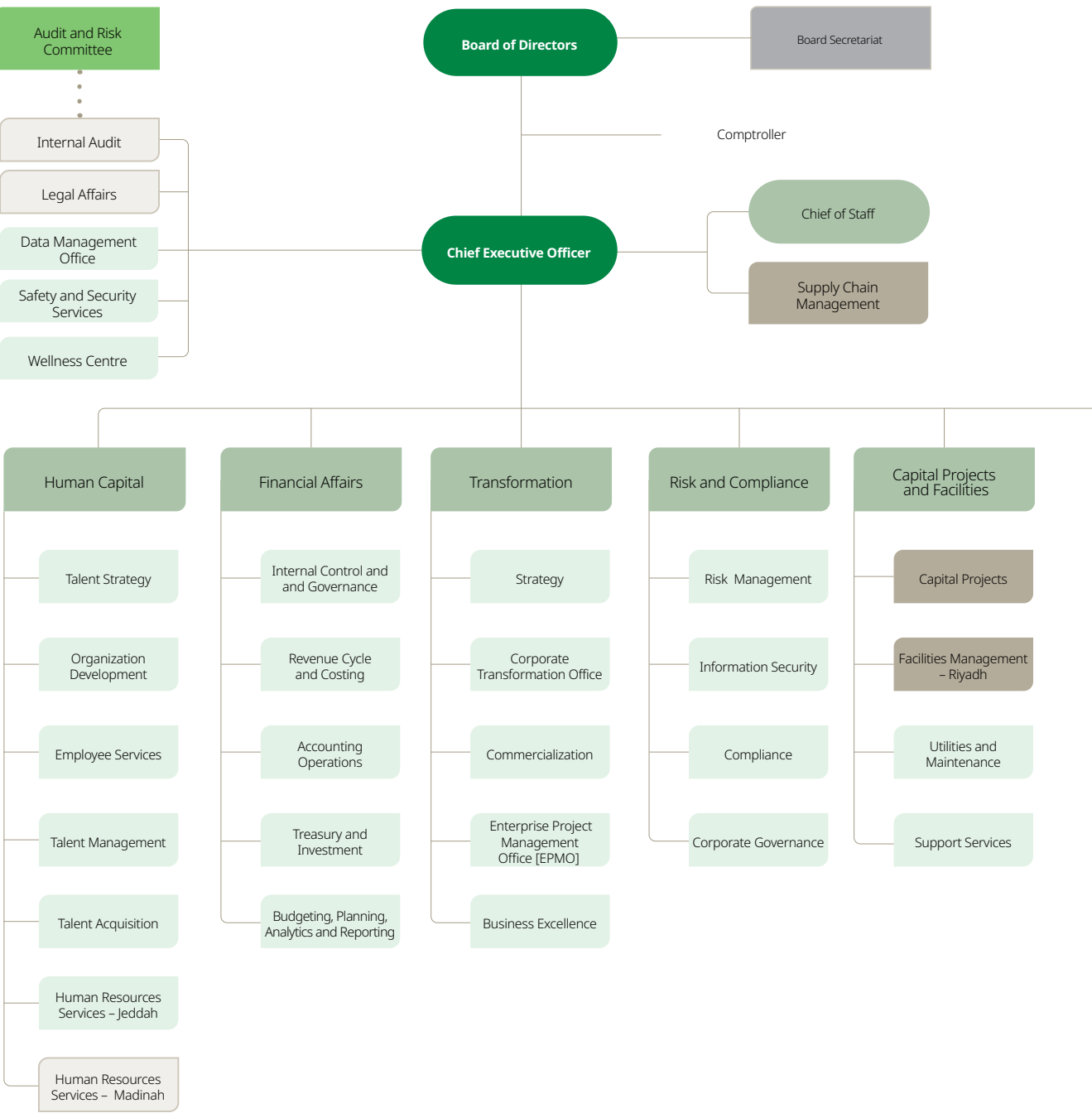
# Leaning into Environmental and Social Responsibility, Governance, and Risk Management

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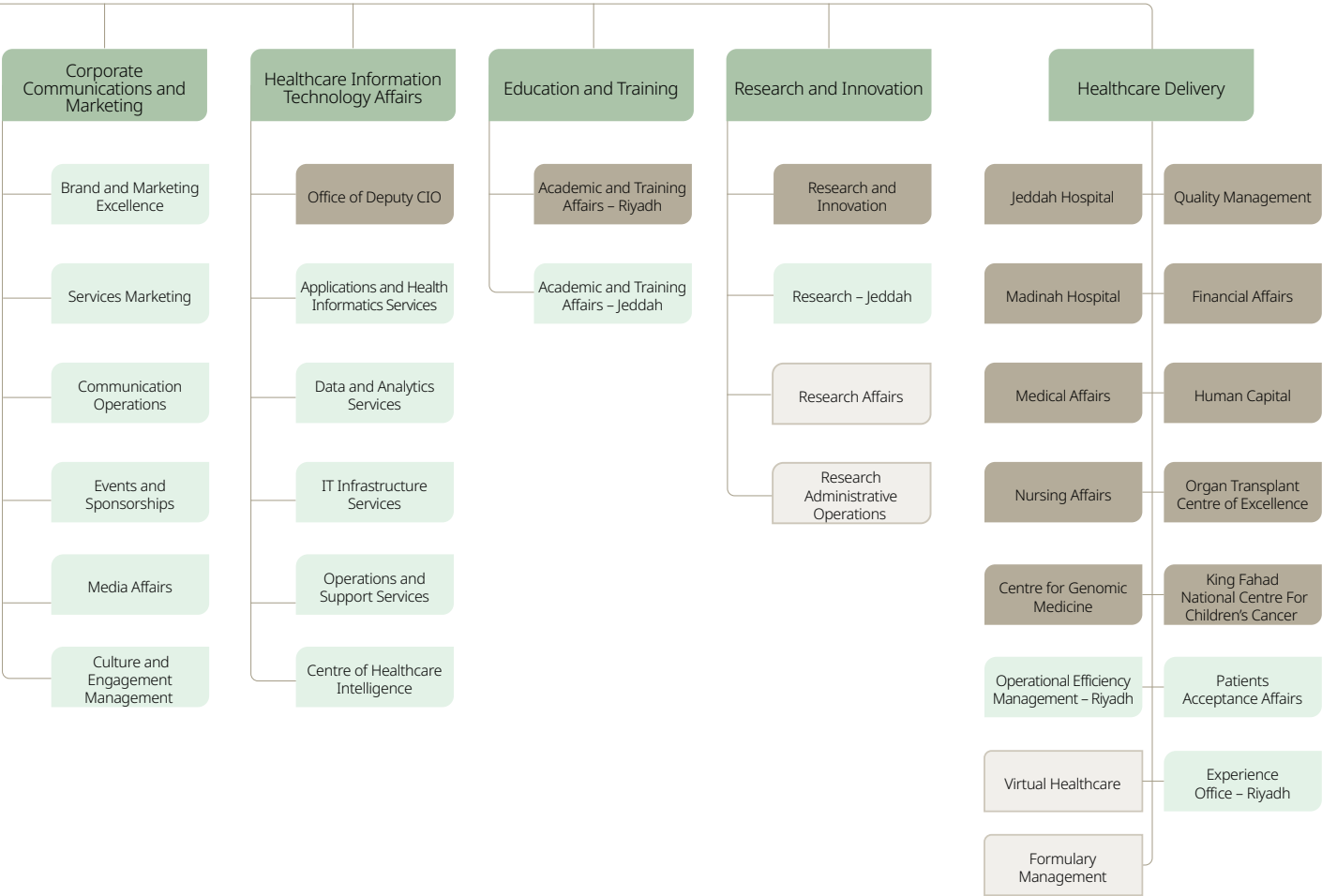


# Our Organizational Governance



Legend:

- C-level
- Division
- Committee
- Group
- Department
- Functional Reporting



# Dealing with Risk and **Opportunity**

KFSHRC continued its journey to embed the frameworks, processes and culture of best-practice risk management, minimization, and compliance in 2023. All divisions have seen significant progress during the year, with risk evaluation, compliance reviews and vulnerabilities assessments, ensuring that we are proactively identifying potential concerns before they arise and take action to mitigate against these threats.

## eGRC project

During 2023, an evaluation and assessment of best practice Governance Risk and Compliance (GRC) management systems was conducted with the overall aim to introduce a management system that combines governance, risk management, and compliance in one coordinated model. The general aim of a modern eGRC platform is to reduce wastage, increase efficiency, reduce non-compliance risk, and share information more effectively.

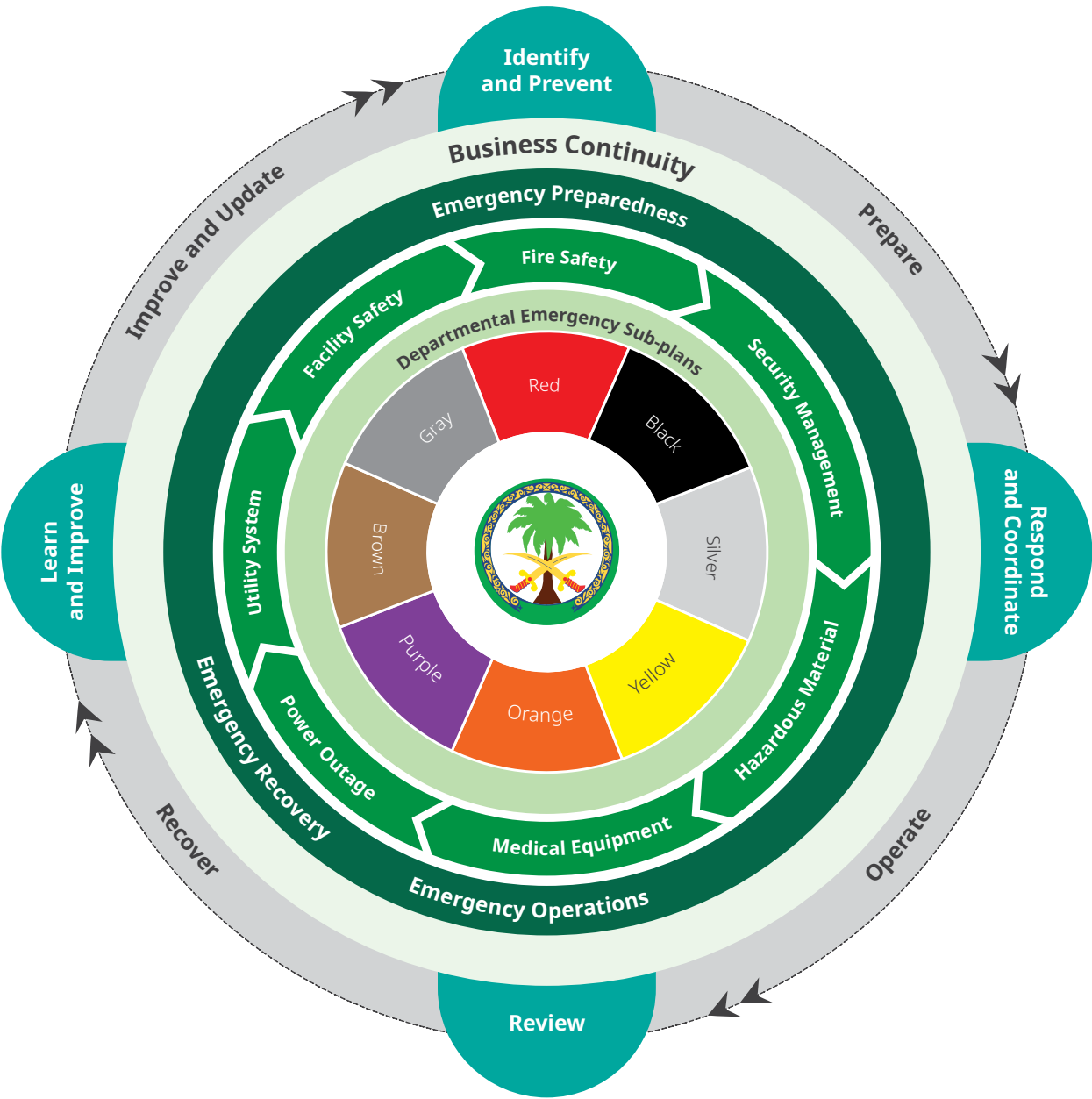
The eGRC solution, planned for implementation in 2024, will provide a single source of assurance data with advanced analytical and reporting capabilities across six internal assurance functions providing common data elements: safety and security, information security and business continuity management, compliance management, quality management, enterprise risk management, and legal affairs.





**Business Continuity – Emergency Preparedness, Operations and Recovery Framework**

The Business Continuity – Emergency Preparedness, Operations and Recovery (BC-EPOR) framework is our response to ensuring we are prepared to deal with emergencies that are outside the scope of day-to-day operations. BC-EPOR provides a mechanism that supports KFSHRC during an emergency, maintains business continuity, and aids recovery from the emergency. The BC-EPOR framework comprises of current practices and introduces new concepts to emergency management at our Hospital. In 2023, the team continued to ensure that our framework is current and flexible to evolve with time and varying circumstances.

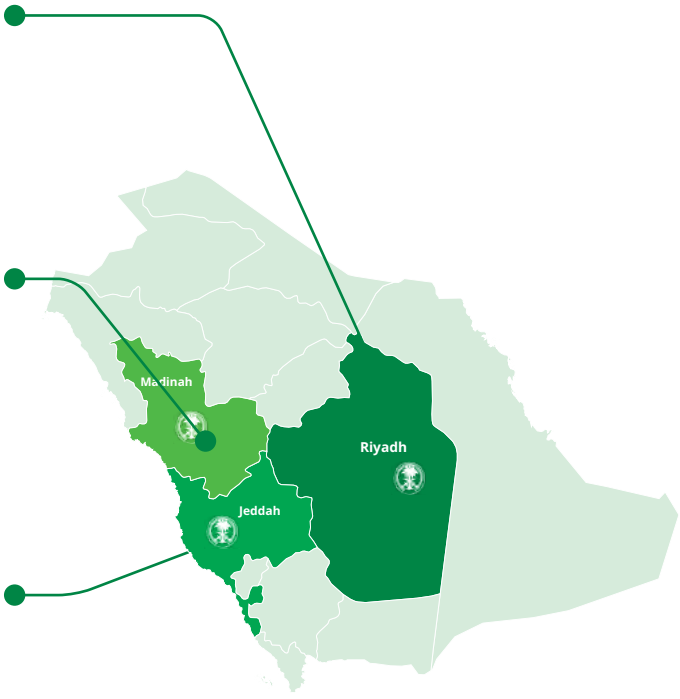
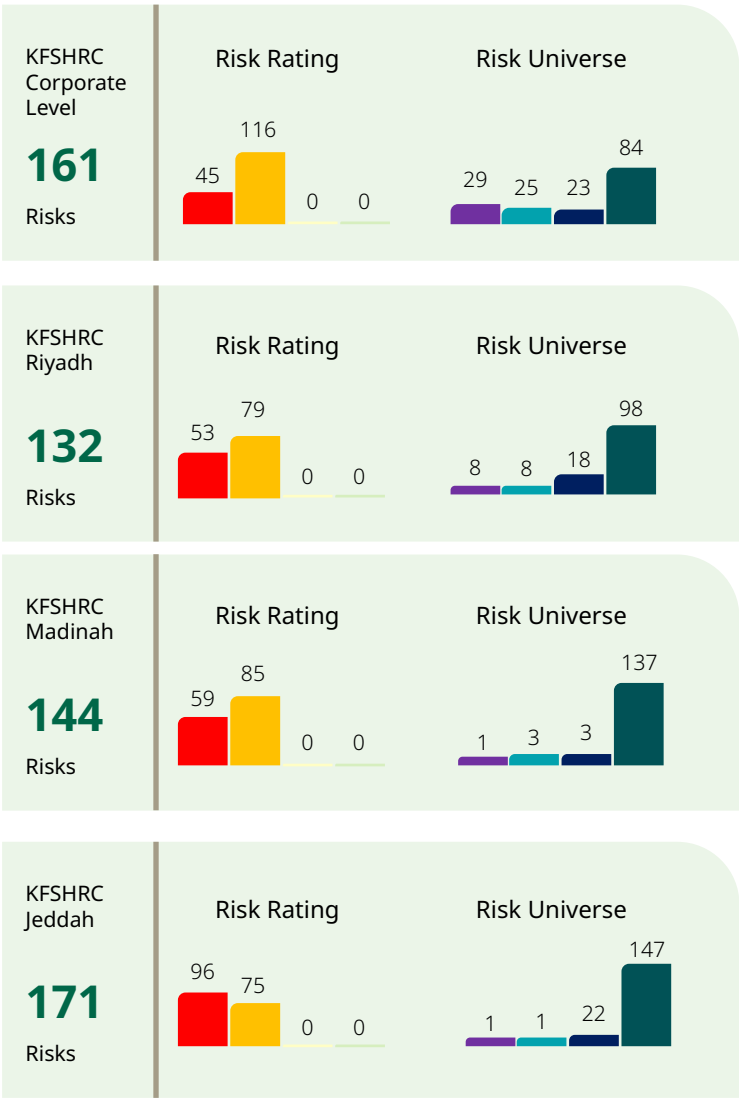


KFSHRC BC-EPOR Framework

### Risk Profile at a Glance

Risk Management division continued to monitor key performance indicators (KPI) together with KFSHRC risk owners and relevant stakeholders to ensure effective measures are in place to limit risk exposures and continuously adjust risk exposure levels accordingly.

As of today, the KFSHRC Risk Register comprises of 608 risks. Risks were identified by all non-clinical and clinical divisions. The information below depicts the distribution of KFSHRC's total risks by location.

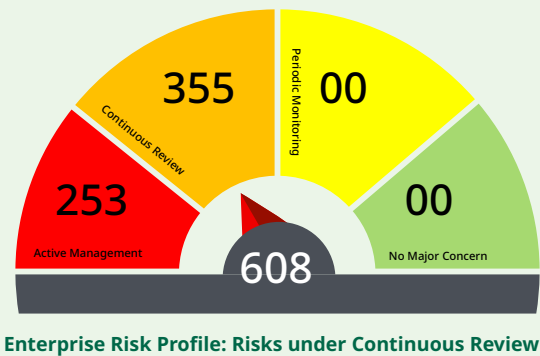


Risk Rating: ■ Active Management ■ Continuous Review ■ Periodic Monitoring ■ No Major Concern

Risk Universe: ■ Strategic ■ Financial ■ Compliance ■ Operational

### KFSHRC Total Enterprise Risks Distribution

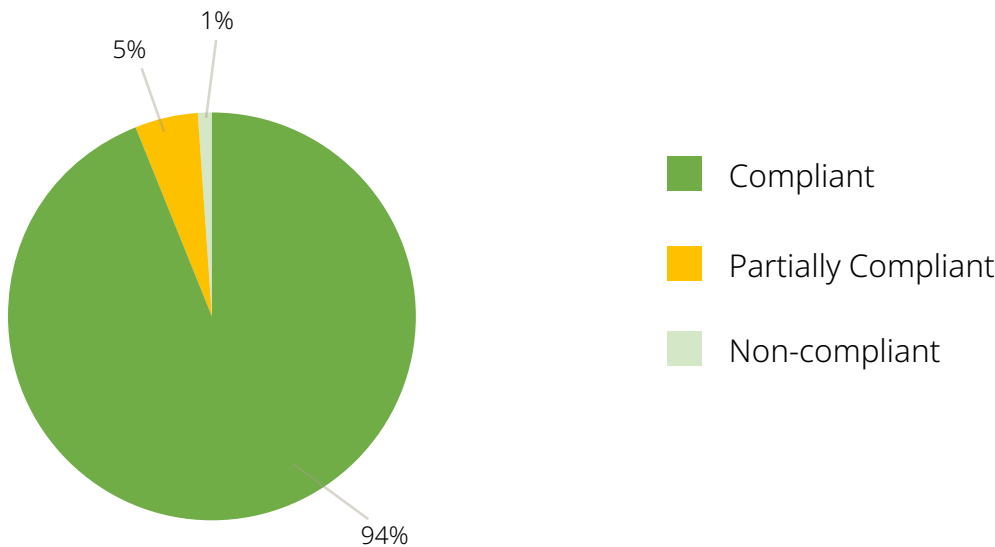
As illustrated in the next figure, based on the risk assessment performed, KFSHRC's current risk profile is at "Continuous Review." This is the quadrant in which most of the risks are located, where controls are adequate with continued monitoring.



Compliance Plan and Assurance Reviews

With the primary objective of protecting KFSHRC from consequences such as reputational damage, penalties and/or fines resulting from the state of non-compliance with applicable laws and regulations and prevent and detect direct violations of internal directives, policies and rules, the Compliance division completed a comprehensive plan in 2023, which includes monitoring compliance obligations (CO), undertaking compliance assurance reviews (CAR), and monitoring compliance obligation response plans (CORP).

Moreover, the Compliance division conducted 20 CARs, during which 579 compliance obligations were reviewed.



Compliance Assurance Reviews 2023



# Caring for **Our Community**

As a conscientious employer, we have a duty of care to our people and a responsibility for their welfare at work. However, much more than that, we regard them as part of our extended family and make every effort to ensure that they are fulfilled in their emotional and social needs. As for our patients, they have been, and always will be, our key focus. It is the quality of their journey which reflects our consistent results as a world-class healthcare provider.

## Key Initiatives in 2023

### Food and Beverage Service Redesign

Recognizing the significance of food and beverages in patient satisfaction, our teams identified areas that could improve our patients' experience even further. This included major restructuring, such as kitchen renovation, hospitality training, food delivery, 50 new diets and a refined menu design.

### Employee Social Club Programs

In order to raise the profile and increase engagement in our employee social clubs (ESC), we launched an awareness campaign, outlining the available activities and opportunities, which led to increased involvement and an even greater sense of community.



Employee social clubs, located at every KFSHRC site, have become a communal hub for all staff members and their families to congregate and connect with each other. Apart from gathering for recreational and sporting events with on-site food and refreshments, there is also the opportunity for car and home appliance rentals and even short-term staff loans.

With low subscription prices, participation has increased substantially, with more than 400 staff competing in basketball, swimming, and tennis competitions. In addition, regular movie and karaoke nights, travel tours, and food fairs ensured that after hours and weekend activities were available throughout the year, further enhancing a sense of community and camaraderie.

### ESC Offerings

- Monthly newsletter (all sites)
- Weekly trending letter (all sites)
- Signage and branding
- Weekly group events and activities

More than 1,140 staff completed a recent social club **satisfaction survey** covering 60 points of engagement, with an **overall satisfaction rate exceeding 80%**.



### InterContinental Hotel – Hospital Synergy

Since KFSHRC's established ownership of the hotel, several initiatives have been taken to ensure that Riyadh's first 5-star hotel not only remains at par with other establishments, but also serves to contribute to the fulfillment of the Hospital's transformation aims. The InterCon housed 90% of KFSHRC's corporate and social activities, and welcomed major conference participants at the King Faisal Conference Hall. In addition, the hotel is utilized to support health tourism goals, with parts of the area undergoing renovations to enhance our services.

The Palms Golf Club is now as green as it could be, offering a fair place to play golf. The golf club attracted a large number of players, raising substantial additional revenue. It also provided clients an option to hold and enjoy outdoor company and family events on the green.





## Wareef Charity

As KFSHRC's charitable arm, King Faisal Specialist Hospital Foundation (Wareef Charity) aims to provide social and healthcare services to patients and help alleviate their condition. In 2023, the Wareef team reported self-revenues of SAR 19.6 Mn. Approximately 2.1 beneficiaries were supported from all projects, 26 projects were completed, and a number of initiatives are supported through its projects platform and endowment funds.

### Key Projects



#### Charitable Housing

Housing to patients coming a long way from home, for ease of compliance to their treatment plan; 500+ beneficiaries.



#### A'tini Sawtan (Give me a voice)

Eight beneficiaries with neurogenerative diseases provided with communication devices to aid interactions with families and improve quality of life in general.



#### Sanabel Al Khair Cards

Food purchasing cards for patients and their families to help reduce costs associated with hospital visits.



#### Provision of Free Potable Water

Over three million water bottles per year consumed, with 90% of the SAR 1.1 Mn cost obtained through donations.



#### Donation of New Wheelchairs

A total of 220 wheelchairs to replace obsolete ones, helping facilitate patients' access throughout the Hospital.



#### Injection-free Insulin

Aimed at alleviating the suffering of families of children with diabetes.

### Autism Research Center

The project supported more than 2,500 beneficiaries, including those who received diagnostic and therapeutic services. More than 500 training sessions were provided, helping families manage their children with autism. Operating expenses for the Center were covered by donations, totaling SAR 4.9 Mn.





Achievements and Events



Mobile blood donation drive

**Volunteer program rendered ~3,500 hours through 40 volunteers**



Harley event for hospitalized children with cancer



International Day of Charity participation

**Participation in the Social Responsibility Forum**



KFSHRC ambulance provided through donations

**Ceremony honoring partners and donors**



Agreements and Partnerships (non-exhaustive)



# Caring for **Our Environment**

## KFSHRC Initiatives



### 1. Renewable Energy Projects

KFSHRC has embarked on an ambitious journey with its renewable energy projects, focusing on the installation and utilization of alternative sustainable and renewable energy sources. This initiative aims to reduce the Hospital's dependence on external utility service providers and lower operational costs. Collaboration with key stakeholders like Tarshid, the Saudi Energy Efficiency Center, and Saudi Electricity is pivotal to the success of these initiatives.

A significant part of the project is the energy retrofitting, which addresses 50 buildings with 15 energy-saving measures. Additionally, the project includes the supply and installation of roof-mounted solar panels on various buildings, including the Training Center, the multi-story parking, and covering walkways and outdoor parking shades.

The outputs of these renewable energy projects are substantial. They contribute to a significant reduction in carbon emissions and generate considerable annual savings of approximately SAR 21.9 million, which is 24% of the 68.6 GWh energy consumption. Moreover, these initiatives significantly enhance the reliability of the Hospital's electrical power supply system, further solidifying KFSHRC's commitment to sustainability and efficient energy use.



### 2. Energy-saving Projects

The energy-saving projects at KFSHRC focus on modernizing and enhancing various systems to reduce energy consumption and transition to greener and more sustainable energy sources. This initiative was primarily driven by the high power consumption of the old systems, including lighting, lack of control systems, and poor efficiency. The implementation of the TARSHID project, as part of this initiative, was deemed essential.

The activities under this project are diverse and strategically planned. They include centralizing chillers to balance energy distribution more effectively and installing LED lights and motion sensors to reduce energy consumption. A significant step in this project is the three-year agreement with the Saudi Energy Efficiency Center, with Phase 1 already underway in the Children's Cancer Center. Additionally, there is an ongoing enhancement of the Building Management System (BMS), further contributing to energy efficiency.







### 3. Conversion of Cooling Systems

The project represents a significant stride towards energy optimization and sustainable energy sourcing. The activities involved in this conversion are comprehensive and technologically advanced. The installation of new water-cooled chillers is a key component, which includes reconnecting buildings such as MSSB, C-Complex, and E-Complex to the Powerhouse. The project also incorporates a chiller management system for both air and water-cooled plants and involves retrofitting pumps. Other activities include the installation of variable flow drivers on AHU/exhaust systems, fresh air pre-cooling unit installation, and air compressor replacement.

The outcomes of these conversion activities are substantial. They are expected to save around 46.2 GWh, which translates to approximately SAR 14.8 million per year.



### 4. Increase Green Landscape

The project aligns with the Kingdom's Green Initiative, aiming to enhance the Hospital campus's environment. It focuses on planting more trees and ground cover vegetation in degraded areas, contributing to climate change mitigation and sustainable development.

Significant progress has been made in increasing the green area within KFSHRC, with a 13% completion over the past two years. Key activities include the installation of 370 m<sup>2</sup> of artificial grass in areas around several buildings and parking areas. Moreover, the old MCO area has been transformed into a park, encompassing a total of 1,700 m<sup>2</sup>, featuring landscape beds, transplanted trees, and seasonal flowering plants. Additionally, 71 different types of trees have been transplanted at the biotech site and the West Compound.

Over 31,000 m<sup>2</sup> of new green landscaped areas will be created in new parks and plazas within the campus. Additionally, there will be a calculation of the reduction in carbon emissions, further contributing to Saudi Arabia's green initiatives. This initiative not only enhances the aesthetic appeal of the hospital campus, but also plays a vital role in environmental conservation and sustainability.



Al Maather Cave Park, a sanctuary at the heart of KFSHRC – Riyadh





5. Water Treatment

The water treatment initiative at KFSHRC involves additional projects to augment the existing sewage treatment plant for irrigation purposes. This initiative is a crucial step towards sustainable water management and conservation within the Hospital's infrastructure.

Two significant projects under this initiative are the dewatering project and the evaluation of the new sewage treatment plant and grounds maintenance.

The expected output of these water treatment projects is significant, with an anticipated capacity of 2,000 m<sup>3</sup> per day. This capacity reflects KFSHRC's commitment to implementing efficient and sustainable water management solutions, contributing to the overall environmental sustainability of the Hospital's operations.

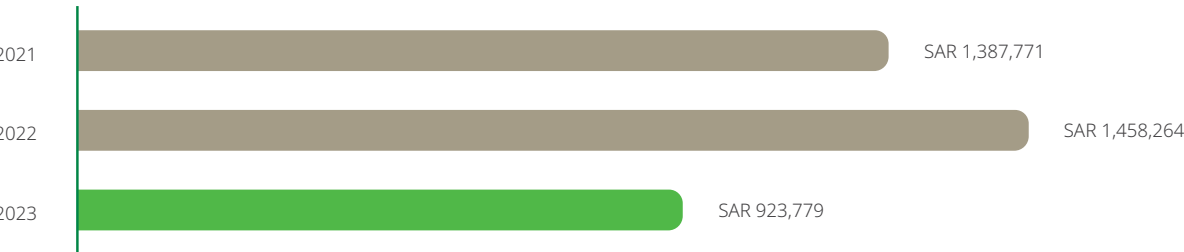


6. Medical Waste Treatment

Initiated in March 2011, this Performance Improvement project focuses on reducing biohazardous red bagged waste and aims to lessen environmental pressure from the incineration process. The Environmental Services-Waste Management team targets to significantly reduce waste charges by 60%.

This initiative not only aimed to reduce costs associated with waste management, but also significantly contributed to the environmental sustainability goals of KFSHRC, aligning with broader eco-friendly practices and sustainable healthcare management.

The result of this strategic focus was a significant decrease in medical waste cost, which dropped from almost SAR 1.4 million in 2021 to below SAR 1 million in 2023.



Desired direction: ▼



7. Recycling Waste

The recycling waste initiative at KFSHRC is a vital part of the Hospital's waste management strategy, focusing on the concept of recycling paper, carton, plastic bottles, and aluminium cans. This is facilitated through the use of reverse vending machines (RVM), which are to be provided across the Hospital premises for use by employees, patients, and visitors. RVMs are highly efficient recycling machines that allow the public to deposit empty single-use beverage containers like bottles and cans. To date, 10 RVMs have been installed, strategically positioned in various locations and each capable of accommodating 450 water bottles and 300 steel cans.

On average, each machine collects about 4,218 bottles per month, totalling approximately 506,160 bottles every year.



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**Indicators**



**Appendices**