

STATE OF THE CLINIC | 2017





“The United Arab Emirates, under the wise leadership of the President His Highness Sheikh Khalifa bin Zayed Al Nahyan, is driving ahead with the development of the healthcare sector according to the highest international standards.”

— His Highness Sheikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces

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CHAIRMAN OF THE BOARD ADDRESS



We are pleased to present the State of the Clinic 2017 report. This is our second annual report documenting the hospital's progress as part of our commitment to transparency.

Cleveland Clinic Abu Dhabi delivered strong growth and progress in 2017. By the end of the year, we had recorded more than 475,000 patient encounters, which included more than 407,000 outpatient visits, over 47,000 Emergency Department visits, more than 7,200 hospital inpatient admissions, and more than 13,000 surgical cases. We also recruited the people and enhanced the processes that we needed to manage higher patient volumes.

Our surgical teams achieved a number of important medical firsts, introducing innovative techniques and treatments that had never previously been performed in the United Arab Emirates.

The hospital was officially designated and licensed by the Department of Health as a research and teaching facility, part of the wider strategy to become a pioneering academic medical center in the region. It continues to support a thriving internship program.

All these achievements are important not just to demonstrate the growth and evolution of the hospital, but also for the contribution we are making to the wider national strategy developed by the far-sighted leadership of the UAE.

By offering new treatment options and contributing to the pool of available medical knowledge, we can complement the existing healthcare infrastructure of the nation and improve the level of care for all. Working alongside the other providers in Mubadala's healthcare network, Cleveland Clinic Abu Dhabi can not only serve patients who require advanced treatment, but can also use its resources and expertise to encourage all people to live healthier lives. Our work will help contribute to a "virtuous circle" across the country, with healthier communities living happier, more productive lives.

We are proud of our work at Cleveland Clinic Abu Dhabi, not only for the achievements of the past year, but also for the long-term impact we are aiming to achieve. Thank you for your support and we will continue to strive to deliver the very highest standard of healthcare.

Sincerely,

Waleed Al Mokarrab Al Muhairi
Chairman
Cleveland Clinic Abu Dhabi

CHIEF EXECUTIVE OFFICER ADDRESS



When we opened the doors of Cleveland Clinic Abu Dhabi in 2015, we made a promise to the community that we would offer world-class healthcare closer to home. I am proud to say that, in 2017, we delivered on that promise.

It was a year that saw the hospital surpass new clinical, educational, research and innovation milestones.

We completed the first heart transplant in the UAE’s history and ensured that facilities were in place to support all four major organ transplants (heart, liver, lung and kidney), a remarkable achievement for a hospital in its third year of operation. We reached our full capacity of 364 beds and continued to recruit and develop talented caregivers from around the world.

Particularly important in 2017 was Cleveland Clinic Abu Dhabi’s growth as a teaching hospital, with our Academic Office initiating crucial programs that will support all caregivers at every stage of their professional journeys. This effort included a first-of-its-kind Physician Internship Program with Cleveland Clinic in the United States.

Alongside Cleveland Clinic Abu Dhabi’s major achievements, this report also documents the everyday successes that help ensure we are providing a world-class level of care for all our patients. Our quality, safety and patient experience metrics continue to rate highly among our global peers, and we have made consistent progress in reducing waiting times by providing readily available access to the services in our Centers of Excellence – Heart & Vascular, Neurological, Digestive Diseases, Eye, and Respiratory & Critical Care.

Cleveland Clinic Abu Dhabi has greatly benefited from the support of our partners throughout this period of growth, including our close working relationships with Mubadala Investment Company and US-based Cleveland Clinic, the Department of Health, Ministry of Health, National Transplant Committee, partner hospitals, universities and the community programs with which we work every day.

To continue to deliver on our mission, we will strive to listen to the voices of our patients and their families and incorporate their feedback into every aspect of the services we offer to the community. Cleveland Clinic Abu Dhabi will also invest in systems and people who will support the sustainable growth of the hospital and wider healthcare sector. In addition, we will encourage a culture of caregivers caring for each other – ensuring that we provide not only the best place to receive care, but also the best place to work in healthcare.

I will close by thanking Cleveland Clinic Abu Dhabi’s patients for their trust and my colleagues for their hard work in delivering the results summarized in this report. Every day, our work together affords us new opportunities to inspire and empower each other. The commitment, compassion and professionalism shown throughout Cleveland Clinic Abu Dhabi have been deciding factors in the success of our mission to deliver complex and critical care to patients in their communities and building a sustainable healthcare sector for the future.

Sincerely,

Rakesh Suri, MD, DPhil
Chief Executive Officer
Cleveland Clinic Abu Dhabi

CLEVELAND CLINIC ABU DHABI

Cleveland Clinic Abu Dhabi is an unparalleled extension of US-based Cleveland Clinic's patient-centered model of care, combining state-of-the-art amenities with the best global clinical practices to deliver exceptional patient care.

Cleveland Clinic Abu Dhabi is a **physician-led** medical institution served by North American board-certified (or equivalent) physicians. The hospital is the result of an agreement signed in 2006 between Mubadala Investment Company and US-based Cleveland Clinic, in support of the Abu Dhabi government's Economic Vision 2030 to develop a robust healthcare sector in the emirate. Its mission is to offer patients in the UAE and the wider region access to **world-class care, close to home.**

Cleveland Clinic Abu Dhabi is composed of 13 institutes designed to put **Patients First** and align with the region's specific healthcare needs. In all, more than 55 medical and surgical specialties are represented at Cleveland Clinic Abu Dhabi and integrated to offer **coordinated, multidisciplinary care** for adult patients.

Every aspect of Cleveland Clinic Abu Dhabi has been developed with the patient in mind, providing a seamless end-to-end patient experience. From family-friendly waiting areas and uplifting surroundings, to wholesome culinary offerings and comfortable patient rooms, every step of the patient journey has been designed to cater to regional and cultural expectations. All these factors play a critical role in the road to recovery and help promote a positive mind-body connection.

The hospital acts as a catalyst for medical innovation and follows the highest international standards of quality and patient safety across all its operations. It is officially designated and licensed by the Department of Health as a **research and teaching** facility, and is working to become a pioneering academic medical center for the whole region.

Cleveland Clinic Abu Dhabi continues to expand its partnerships with insurance providers, as well as its inclusive **appointment service**, to offer more patients access to the hospital's globally recognized model of care.

INSTITUTES

-  Heart & Vascular Institute*
-  Emergency Medicine Institute
-  Neurological Institute*
-  Pathology & Laboratory Medicine Institute
-  Digestive Disease Institute*
-  Imaging Institute
-  Eye Institute*
-  Anesthesiology Institute
-  Respiratory & Critical Care Institute*
-  Quality & Patient Safety Institute
-  Medical Subspecialties Institute
-  Clinical & Nursing Institute
-  Surgical Subspecialties Institute

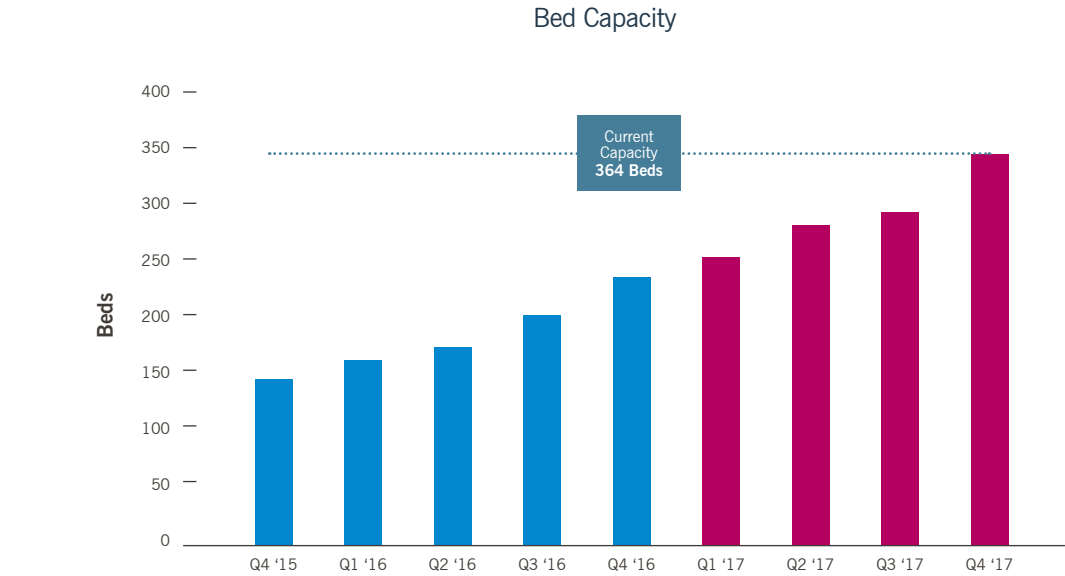
*Centers of Excellence



GROWTH

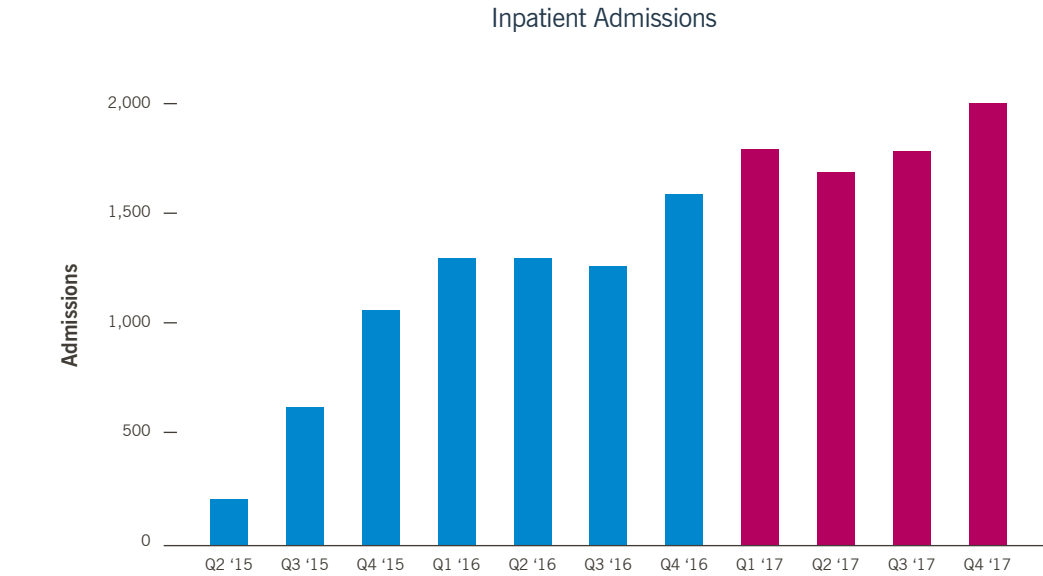
Bed Capacity

Cleveland Clinic Abu Dhabi met its target capacity of 364 beds.



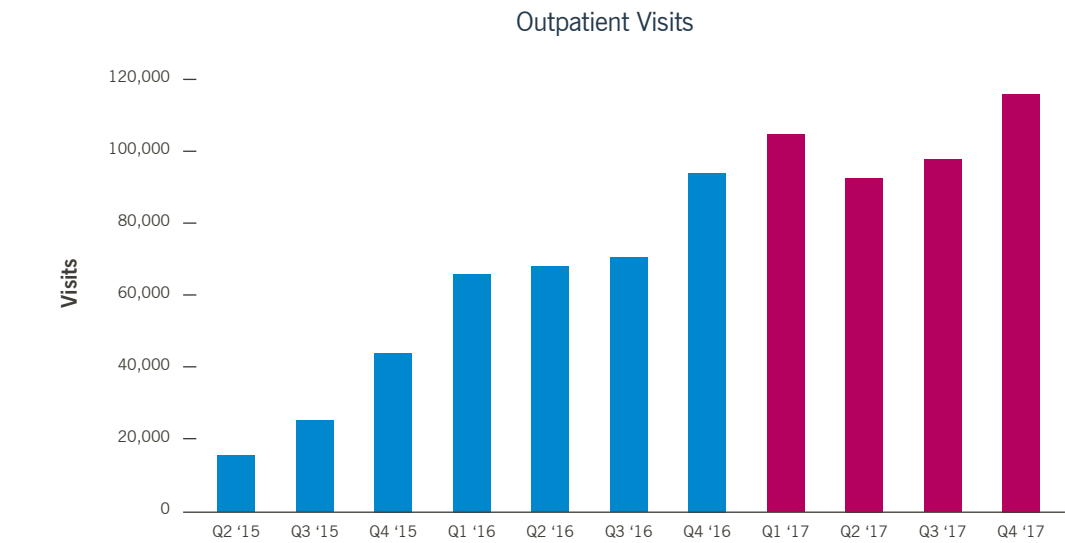
Inpatient Admissions

Hospital admissions continued to increase in line with bed expansion and totaled 7,223, an increase of 33%.



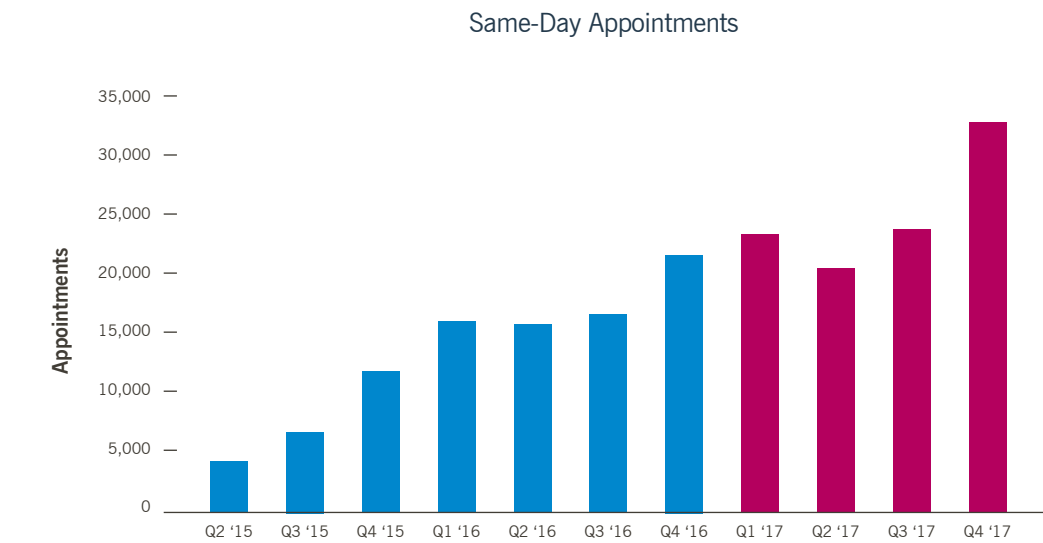
Outpatient Visits

Total number of outpatient visits exceeded 400,000, an increase of 38%.



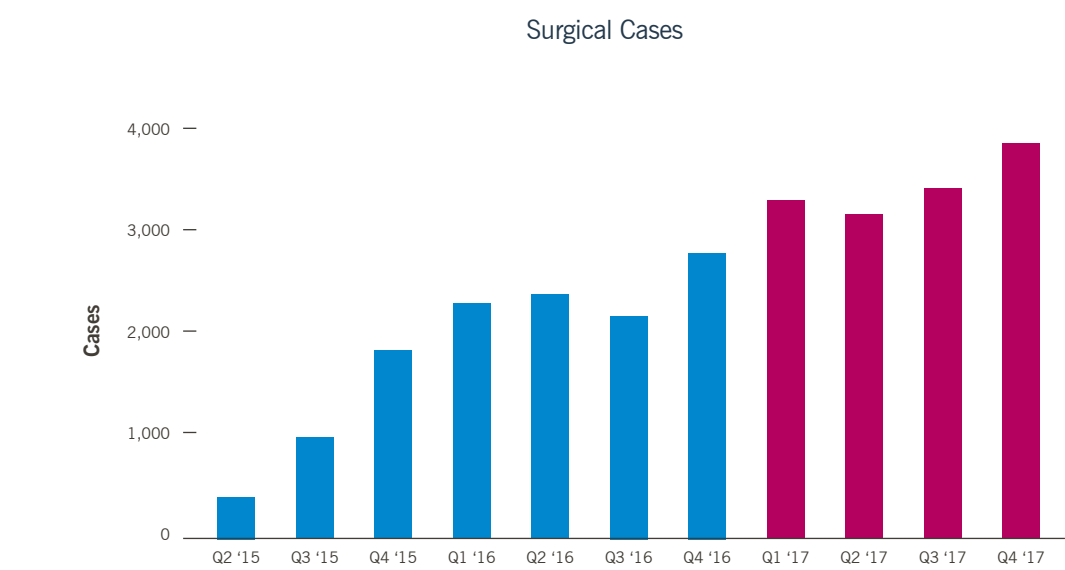
Same-Day Appointments

More than 100,000 same-day appointments were completed, an increase of 43%.



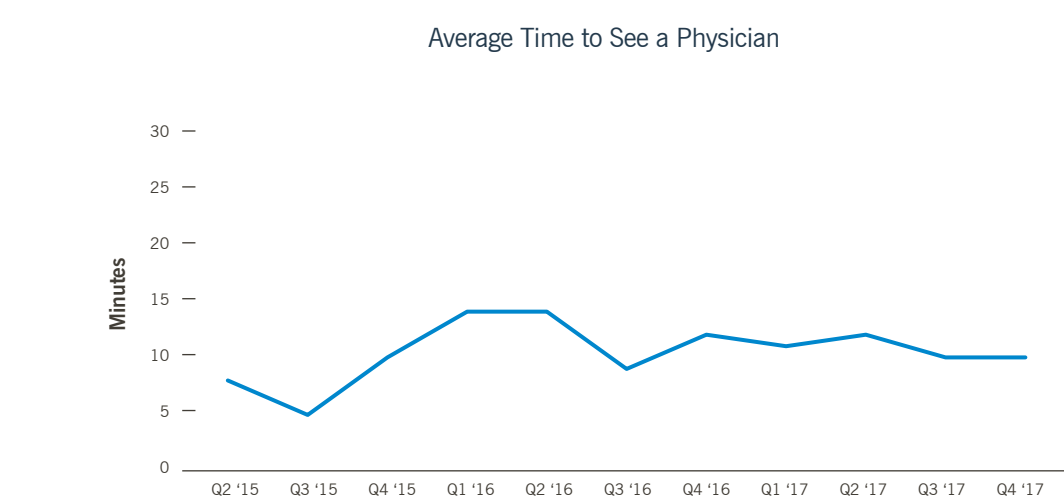
Surgical Cases

Cleveland Clinic Abu Dhabi performed more than 13,000 surgical cases, an increase of 42%.



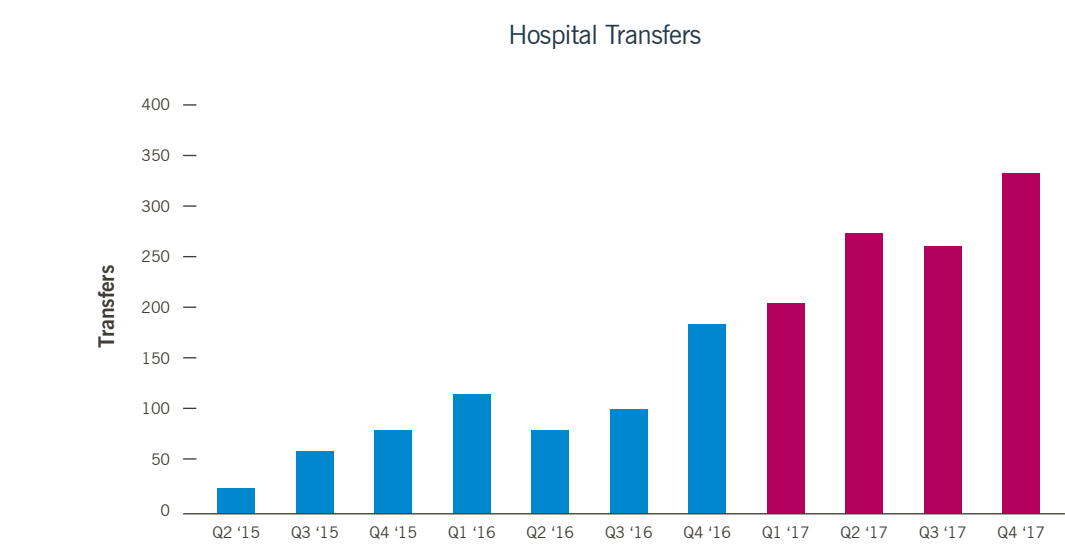
Emergency Department Door-to-Physician Time

The Emergency Department's door-to-physician time continues to decrease, with patients seeing a physician within an average of 11 minutes after arrival.



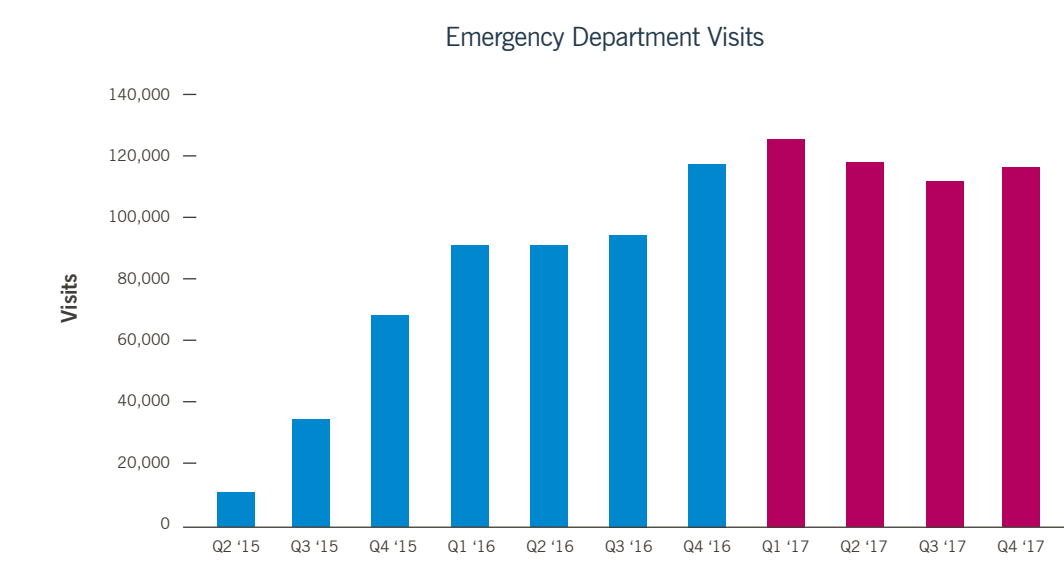
Hospital Transfers

More than 1,000 patients transferred to Cleveland Clinic Abu Dhabi from other UAE and international hospitals, an increase of 121%.



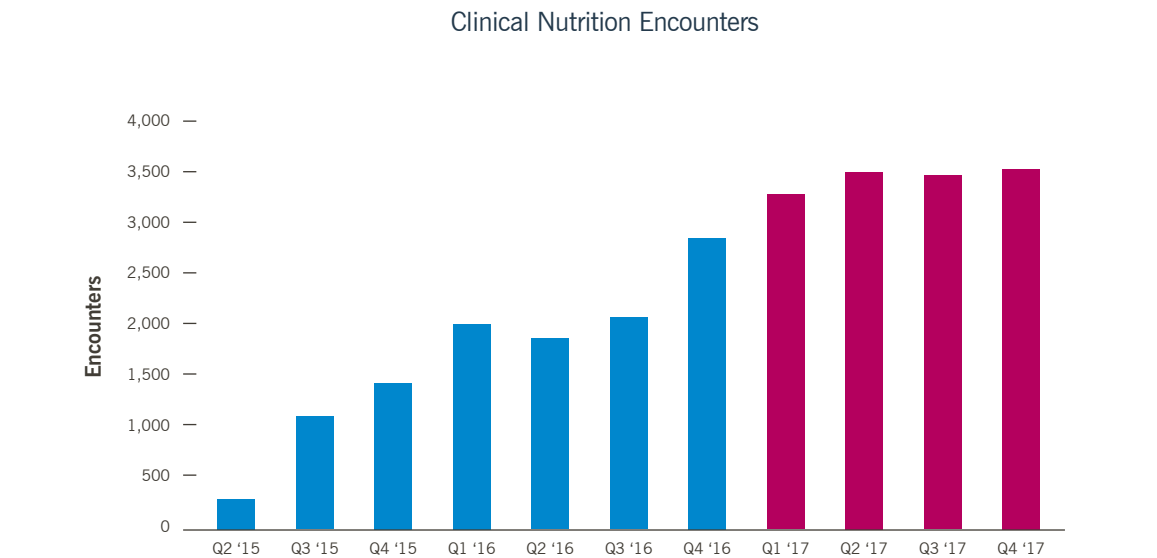
Emergency Department Visits

The Emergency Department received 47,692 visits, an increase of 20%.



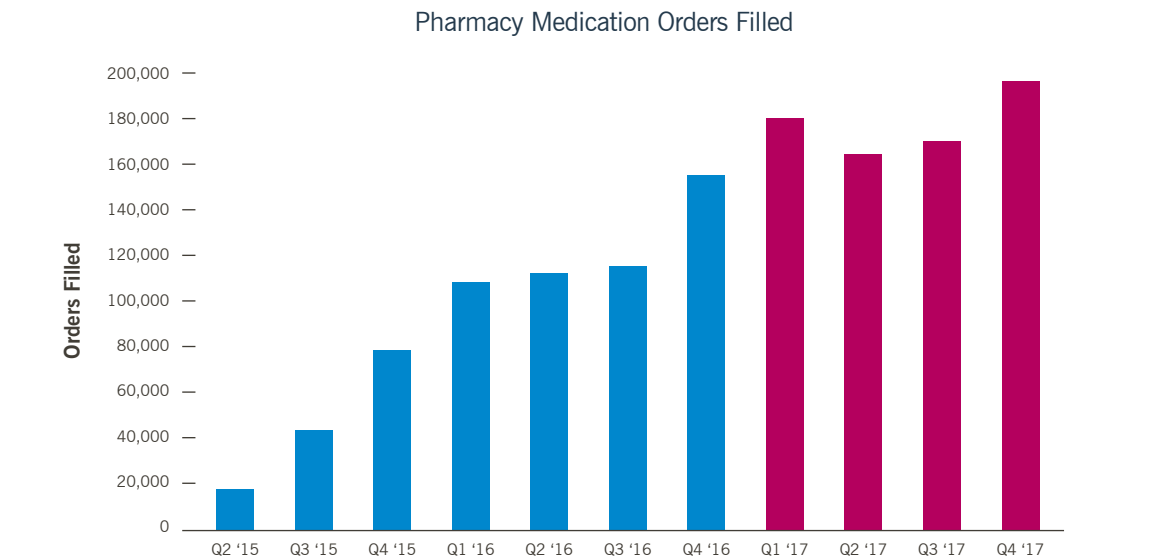
Clinical Nutrition Encounters

More than 14,000 clinical nutrition visits were completed, an increase of 56%.



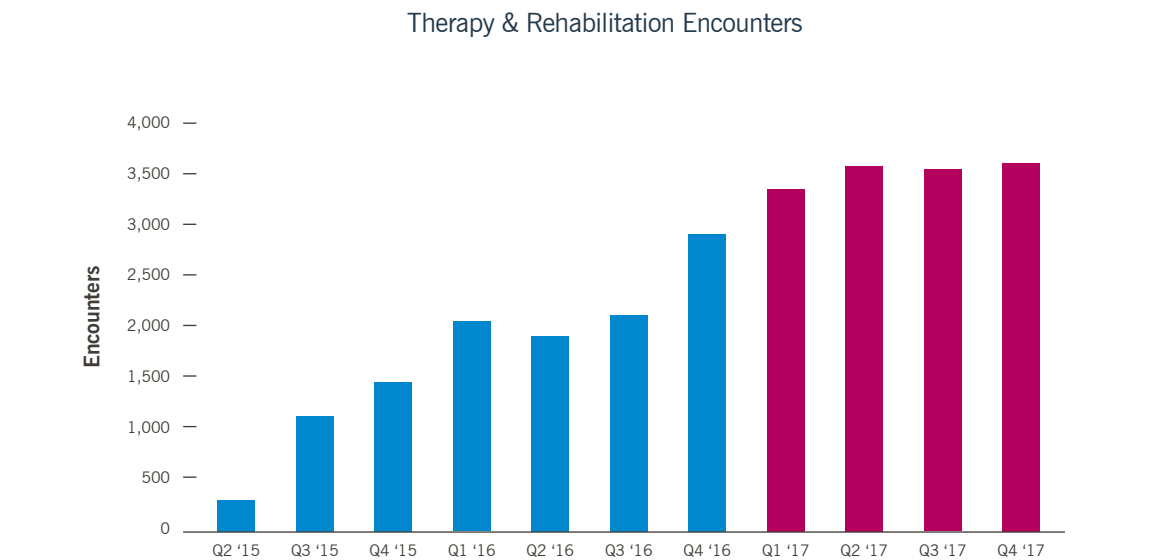
Pharmacy Medication Orders Filled

A total 715,165 pharmacy medication orders were filled, an increase of 45%.



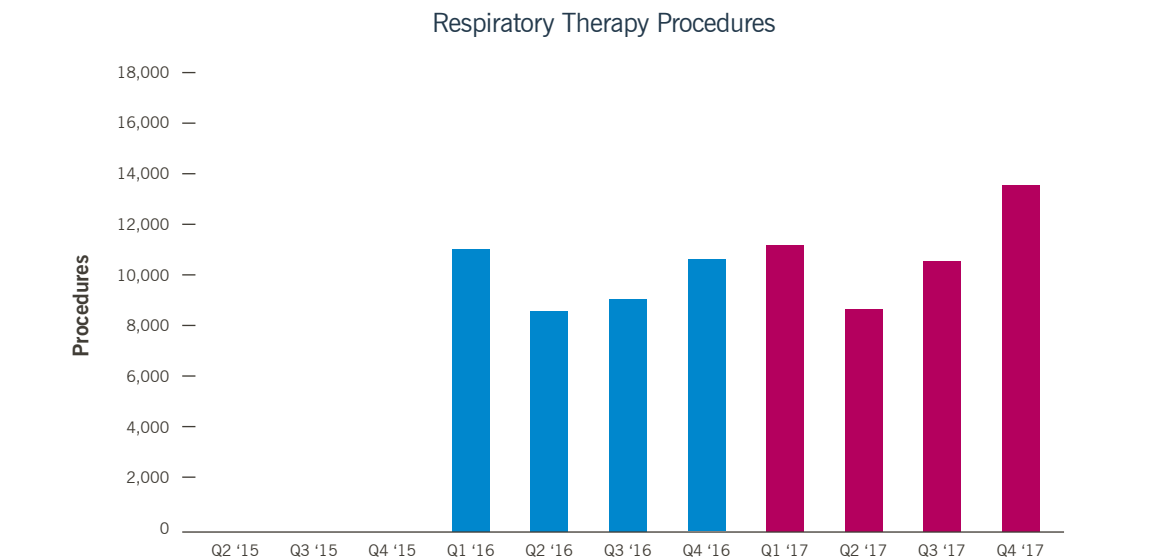
Therapy & Rehabilitation Encounters

Nearly 27,000 therapy and rehabilitation encounters were recorded, including speech, occupational and physical therapy, an increase of 50%.



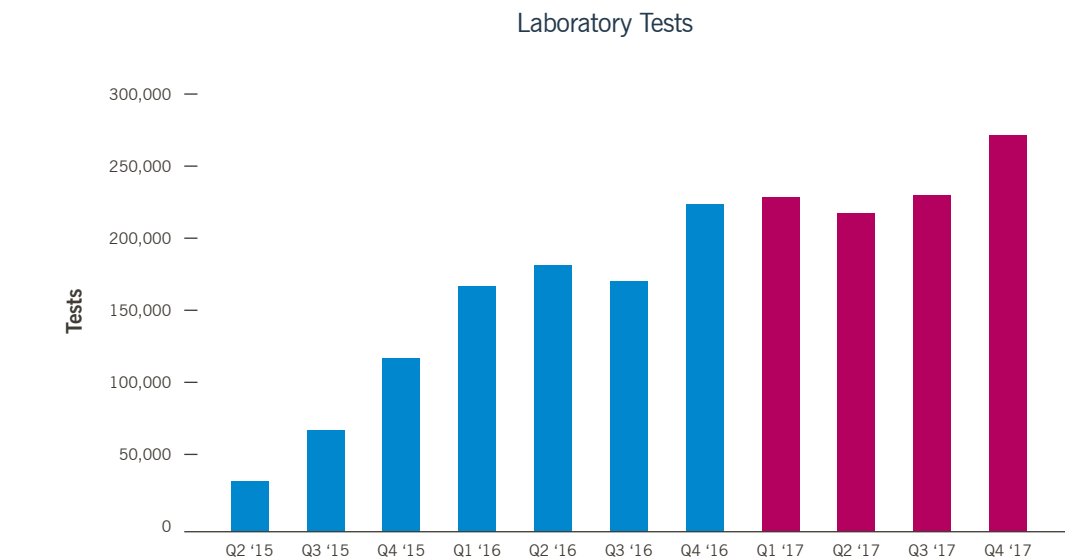
Respiratory Therapy Procedures

More than 55,000 respiratory therapy procedures including nebulizer treatment, ventilator management, spirometry, and chest physiotherapy were performed, an increase of 12%.



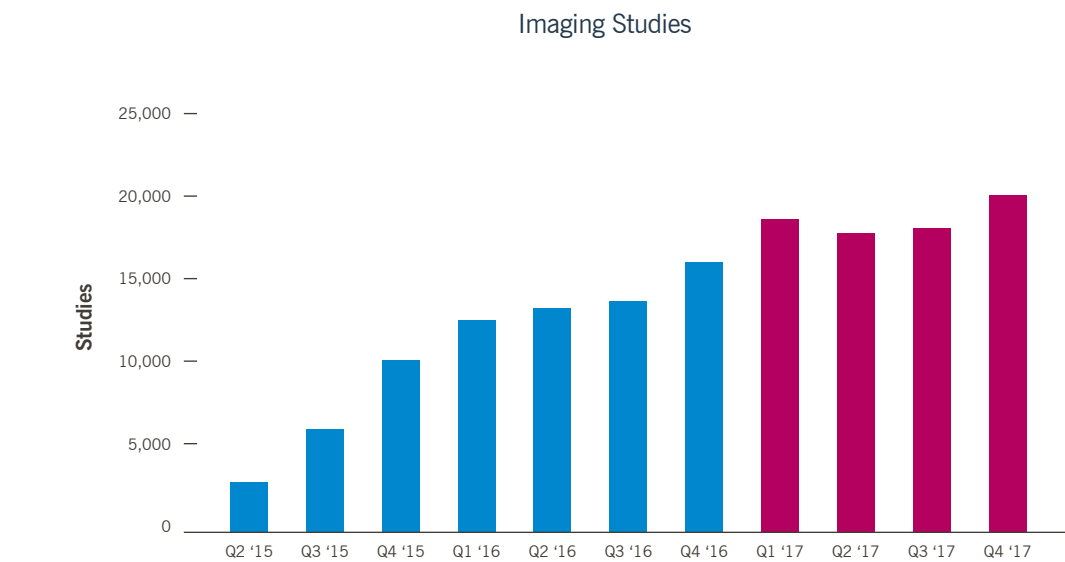
Laboratory Tests

More than 940,000 laboratory tests were performed, an increase of 27%.



Imaging Studies

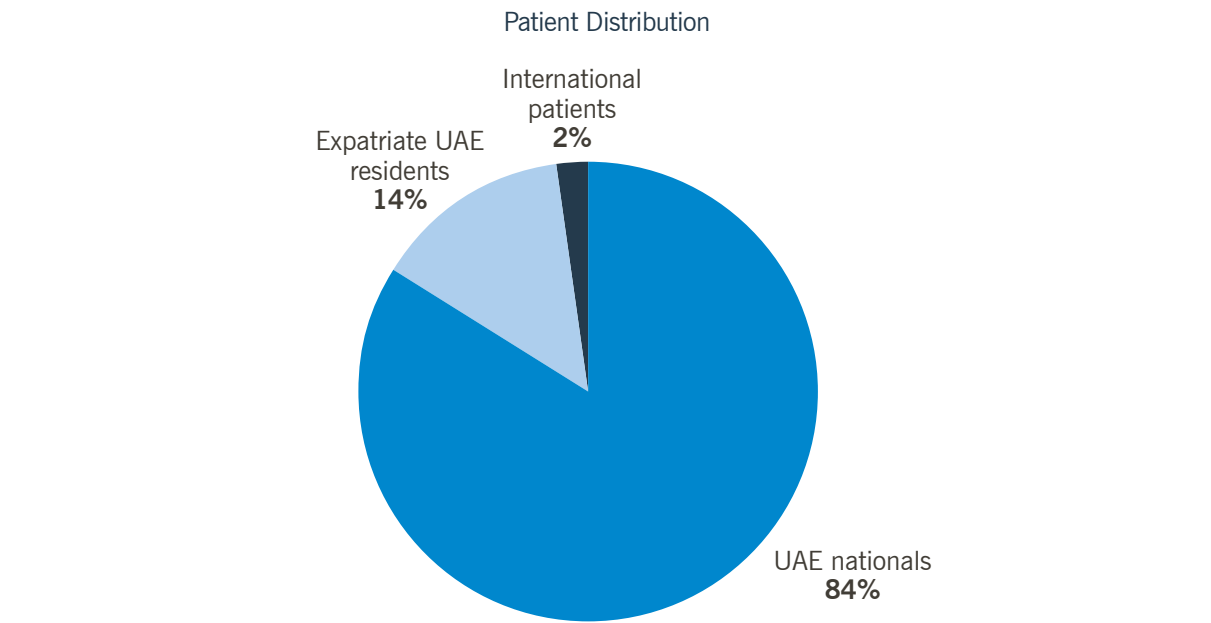
More than 75,000 imaging studies were conducted, an increase of 34%.



■ 2015-2016 Data ■ 2017 Data

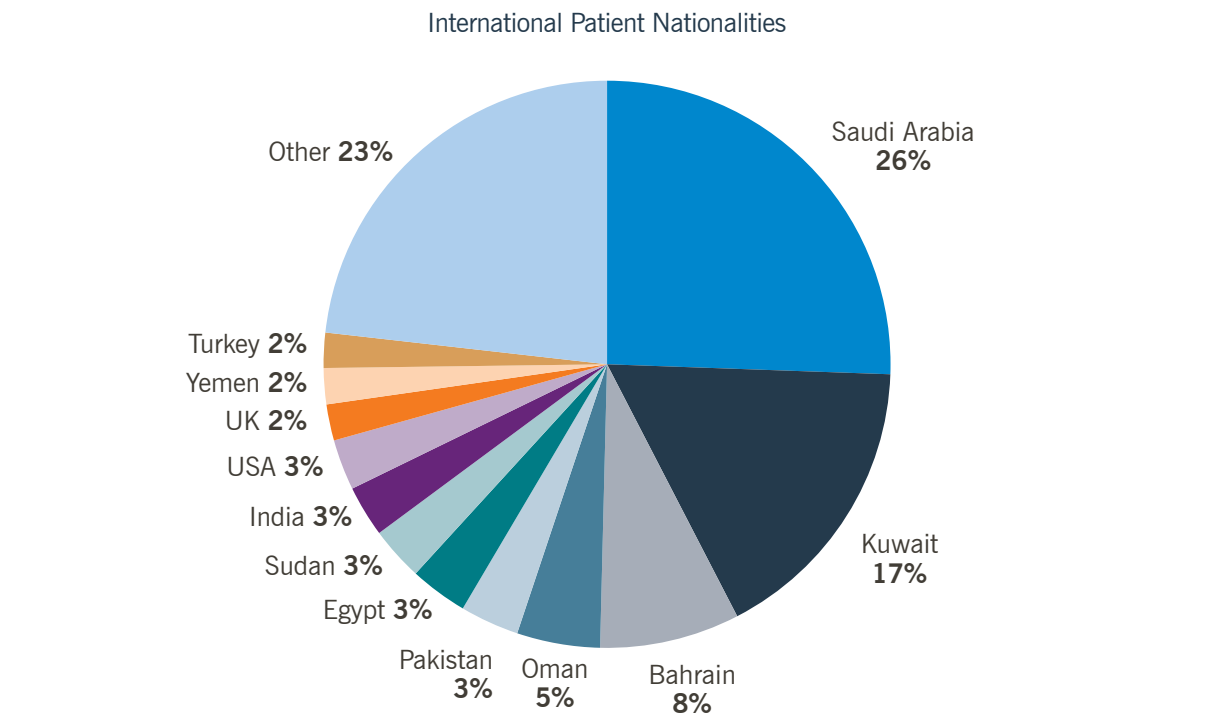
Patient Distribution

Cleveland Clinic Abu Dhabi's patient distribution included 84% UAE nationals, 14% expatriate UAE residents and 2% international patients.



International Patients

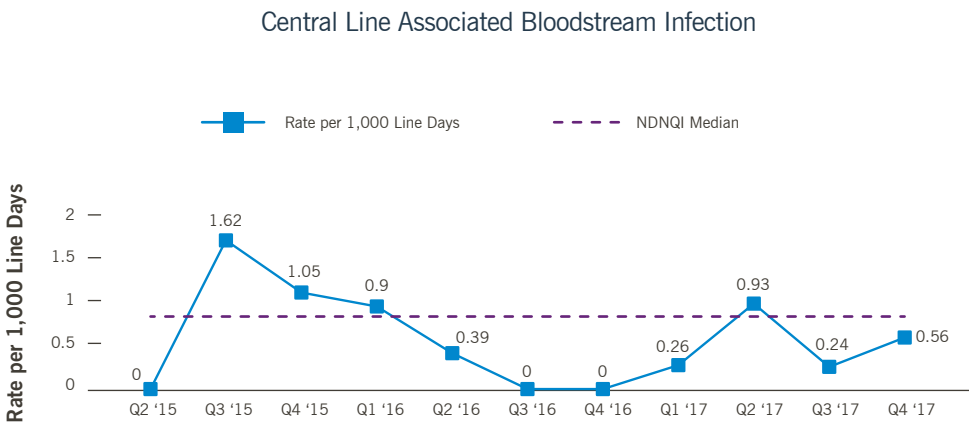
The number of unique international patients rose to 1,187, an increase of 3%. International patients came from more than 80 countries. The GCC continues to account for more than half of all international patient visits.



QUALITY AND SAFETY

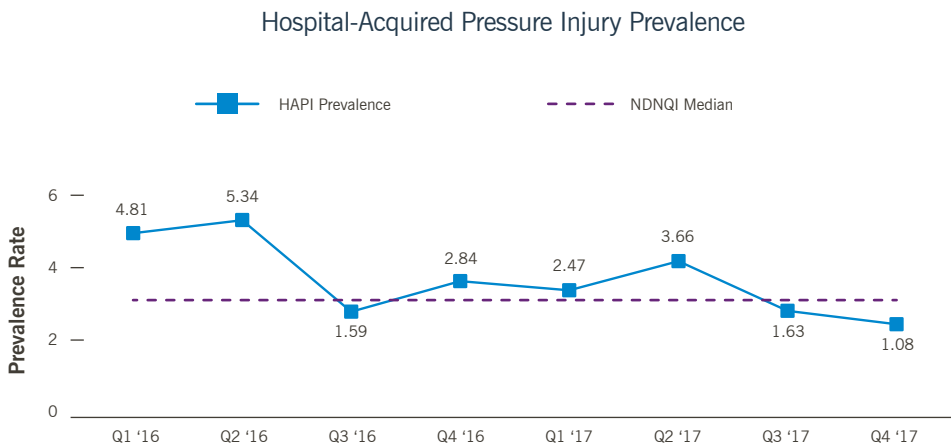
Central Line Associated Bloodstream Infection (CLABSI)

While Cleveland Clinic Abu Dhabi saw a slight increase in CLABSI events, the overall rate for 2017 was better than the National Database of Nursing Quality Indicators (NDNQI) median¹.



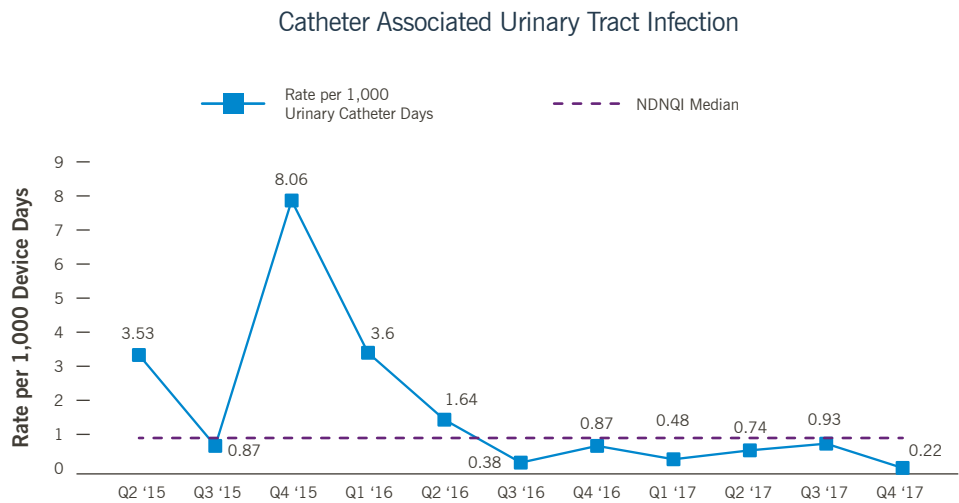
Hospital-Acquired Pressure Injury Prevalence

Cleveland Clinic Abu Dhabi is continuing efforts to reduce hospital-acquired pressure injury prevalence.



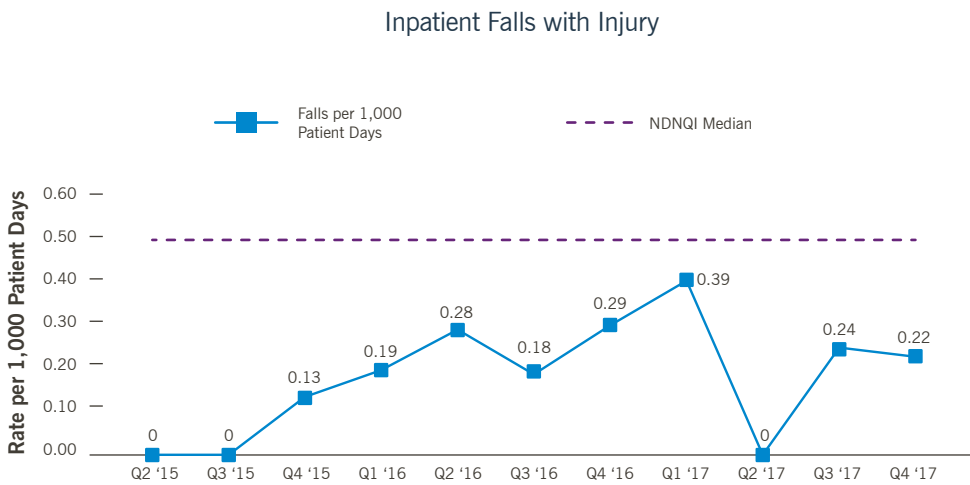
Catheter Associated Urinary Tract Infection (CAUTI)

CAUTI rates remain below the NDNQI Median.



Inpatient Falls with Injury

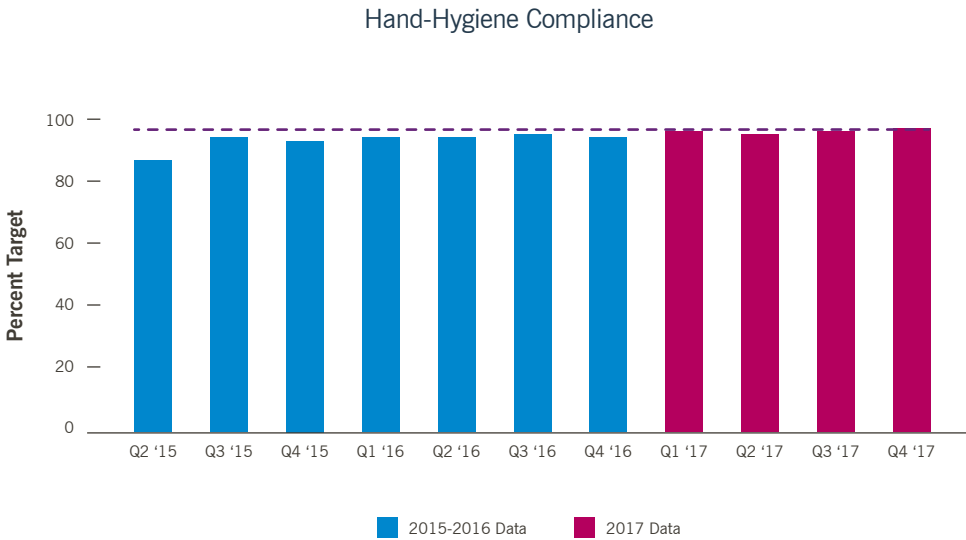
Inpatient falls with injury remain below the NDNQI median.



1. The National Database of Nursing Quality Indicators (NDNQI) is a member-based organization of academic medical centers and health systems in the United States and abroad, which provides research-based national comparative data.

Hand-Hygiene Compliance

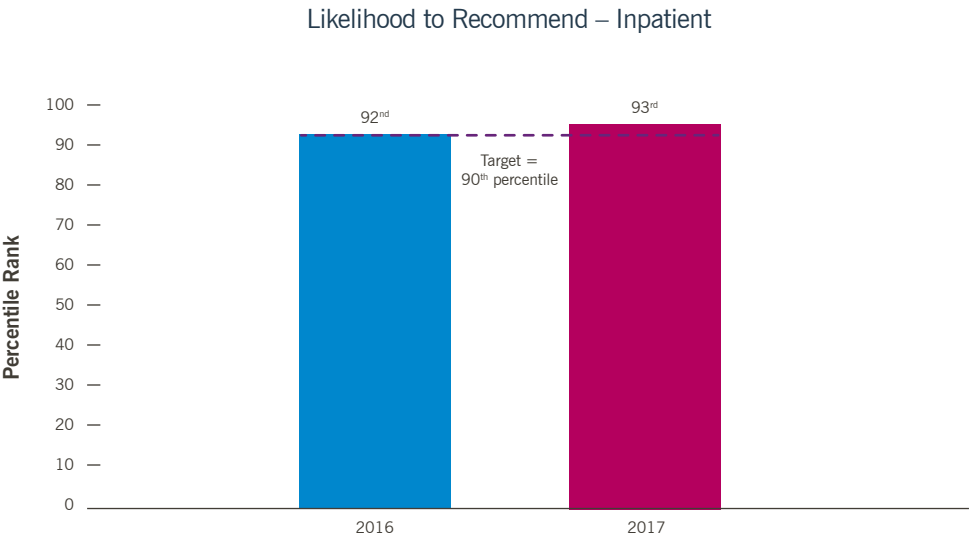
Hand-hygiene is one of the most effective ways to stop the spread of infections. Hand-hygiene compliance continues to increase, reaching the target of 95% by year-end 2017.



PATIENT EXPERIENCE

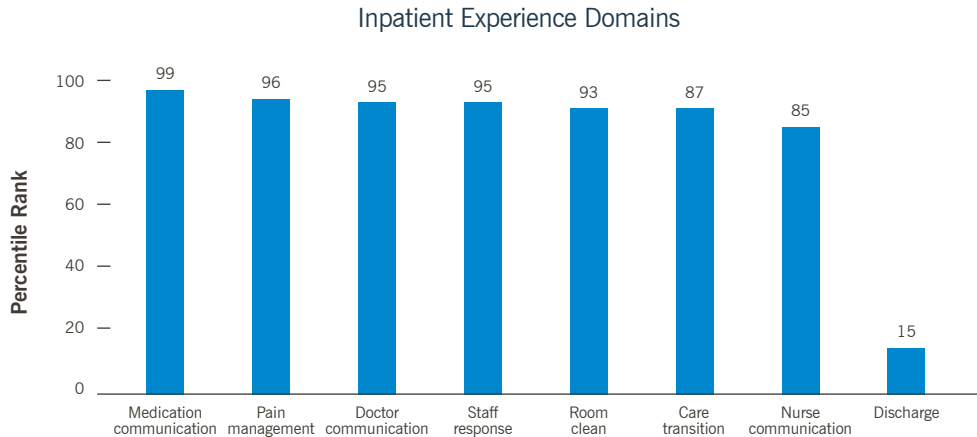
Likelihood to Recommend – Inpatient

Patients rated Cleveland Clinic Abu Dhabi in the 93rd percentile of inpatient satisfaction surveys. This is above the target of 90th percentile of all hospitals internationally.



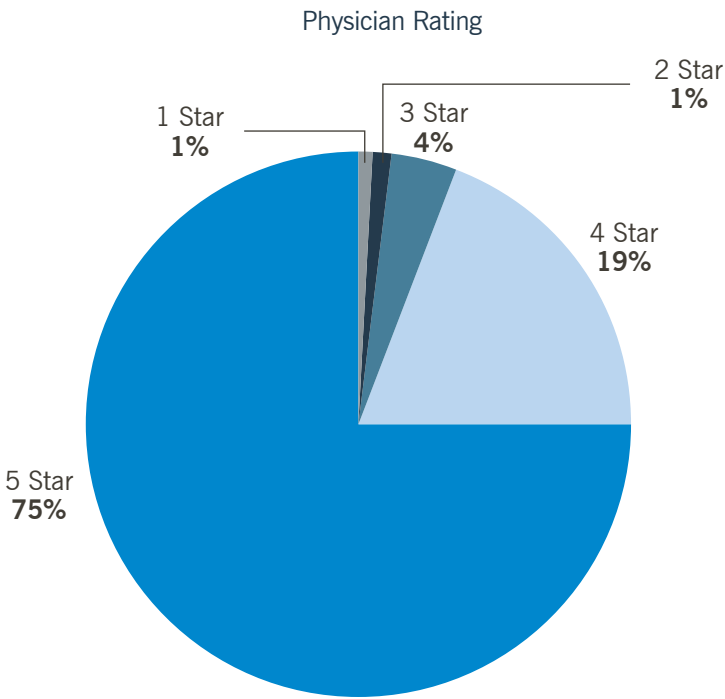
Inpatient Experience Domains

Improvement continues in the inpatient experience domains to keep percentile ranks above the 90th percentile target. Medication communication ranks the highest at 99th percentile.



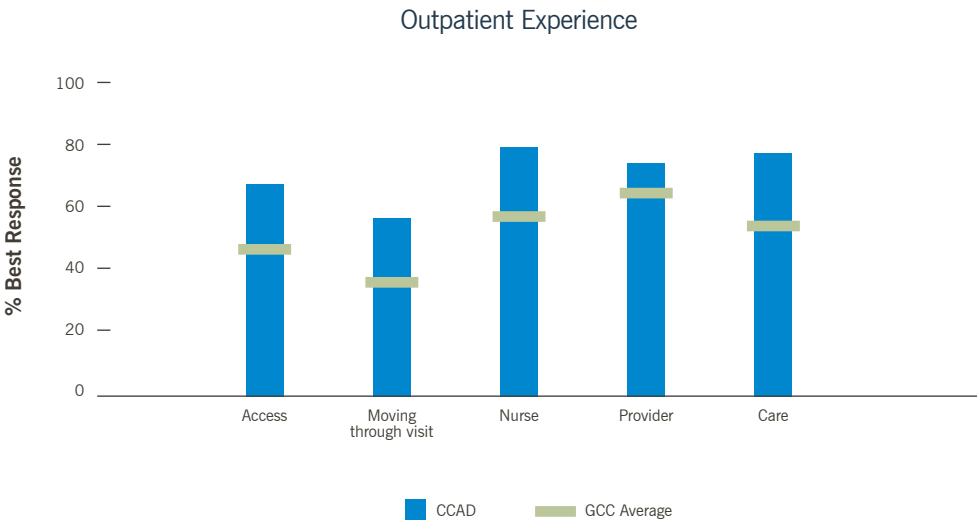
Physician Rating

94% of Cleveland Clinic Abu Dhabi physicians have received a four or five-star rating in outpatient surveys.



Outpatient Experience

Cleveland Clinic Abu Dhabi scores continuously above the GCC average.



CLINICAL FIRSTS AND MEDICAL INNOVATIONS

Heart & Vascular Institute	• UAE’s first heart transplant • Established one of the most advanced robotic heart surgery programs in the world - UAE’s first robotic completely endoscopic triple coronary artery bypass grafting procedure - UAE’s first robotic endoscopic division of a LAD myocardial bridge - Majority of mitral valve repairs done robotically • International first contrast-sparing exclusion of an abdominal aortic aneurysm using transcaval ultrasound and fusion imaging • UAE’s first catheter-based double valve implantation
Neurological Institute	• Comprehensive epilepsy evaluation and monitoring 24x7 • Completed five complex epilepsy surgery cases • 25 endoscopic skullbase cases • 102 intraoperative electrophysiological neuromonitoring cases
Digestive Disease Institute	• First endoscopic sleeve gastropasty, a weight-loss procedure performed endoscopically without the need for surgery, in the Cleveland Clinic health system • UAE’s first comprehensive Inflammatory Bowel Disease program • Region’s first per oral endoscopic pyloromyotomy (POP) procedure • Complex robotic liver resections in the Hepatobiliary Center • Region’s first laparoscopic median arcuate ligament release
Eye Institute	• Region’s only ocular electrophysiology unit • UAE’s first ocular genetics service
Respiratory & Critical Care Institute	• Implementation of “allow natural death” law in partnership with patients and their families • Novel medications for severe asthma and idiopathic pulmonary fibrosis • Home sleep testing for obstructive sleep apnea
Emergency Medicine Institute	• Chest Pain Center accreditation with Department of Health - Abu Dhabi • Average of 11 minutes door-to-physician time
Surgical Subspecialties Institute	• Living related and deceased donor kidney transplantation • UAE’s first robotic hysterectomy • Laparoscopic donor nephrectomy • Establishment of the Voice Clinic, offering voice restoration and office laser procedure for disease of the larynx • Robotic/laparoscopic radical prostatectomy and partial nephrectomy

Medical Subspecialties Institute	• Activation of new Executive Health program • Virtual glucose monitoring and alcohol injection for thyroid nodules in Endocrinology
Pathology & Laboratory Medicine Institute	• Only ISO 22870 accredited Point of Care Testing services in the MENA region • Completed three successful blood drives in collaboration with Abu Dhabi Blood Bank, with more than 300 units of blood provided by the community • Provision of the UAE’s only autologous serum eye drops in collaboration with the Pharmacy
Imaging Institute	• Activation of three-dimensional (3D) printing for noninvasive diagnostic imaging, computer-aided design, using patient-specific 3D models for medical teaching and procedural planning • Cleveland Clinic Abu Dhabi – Al Ain is the UAE’s only PET.CT facility performing cardiac and neurological studies • Cardiac PET studies adopting latest pharmacologic stress protocol with Regadenoson • Region’s only center performing Quantitative Cardiac PET imaging with flow tracer N13-Ammonia and Myocardial Flow Quantification • Region’s only PET facility accredited by American College of Radiology
Anesthesiology Institute	• Initiated pre-op phase of Perioperative Surgical Home • Anesthesia and Surgery Screening Program (ASP) • Hosted first Middle East Cardiac Anesthesia Conference
Clinical & Nursing Institute	• Pharmacy-led Heart Failure Clinic • Mobile cardiac telemetry service • Remote monitoring for Cardiac Implantable Electronic Devices (CIEDs) program • Intraoperative monitoring for cranial/spine/vascular procedures • UAE’s first hospital to apply for Magnet designation with application accepted and document submission planned for August 2018

FULFILLING THE TRANSPLANT PROMISE

One of Cleveland Clinic Abu Dhabi's most significant achievements of 2017 was delivering on its promise to open the UAE's **first, and only, multi-organ transplant center**.

Throughout the process of establishing and opening Cleveland Clinic Abu Dhabi, launching the transplant program was a top strategic priority. In 2017, after completing the regulatory compliance and licensing process for the program, Cleveland Clinic Abu Dhabi performed the following operations.

- First **kidney transplant** (April 2017)
- First **kidney transplant** from a deceased donor (September 2017)
- First **heart transplant** and kidney transplant from a deceased donor (December 2017)
- First **full liver transplant** from a deceased donor (February 2018)
- First **lung transplant** from a deceased donor (February 2018)

By completing these successful transplants, Cleveland Clinic Abu Dhabi **made history**, becoming the first hospital in the UAE to launch a full transplant program within three years of opening.

Cleveland Clinic Abu Dhabi provides extensive pre- and post-operative support to ensure **successful long-term outcomes** for transplant patients.

To establish its transplant program, Cleveland Clinic Abu Dhabi has worked closely with the UAE Ministry of Health and Department of Health; the National Transplant Committee, Cleveland Clinic Transplant Center in the US; the Saudi Center for Organ Transplant (SCOT); Abu Dhabi Police; and the Donation and Transplant Institute of Spain.



2017 ACHIEVEMENTS

Cleveland Clinic Abu Dhabi achieved a range of milestones during 2017, helping the evolution and development of the region's healthcare sector.

JANUARY

- **Memorandum of Understanding (MoU) with Fatima College of Health Sciences** to encourage more UAE nationals to consider careers in healthcare. Five students join hospital's graduate nursing program, and 20 students sponsored to continue their studies.

FEBRUARY

- **Region's first gastric POP procedure**, a minimally invasive procedure performed entirely using an endoscope through the mouth, resulting in no skin scarring.

MARCH

- Hospital employs new Senior Clinical Director of Nursing, first UAE national in a nursing leadership role.

APRIL

- Department of Health – Abu Dhabi announced hospital as the **emirate's official center for chest pain**, enabling all patients to receive urgent, specialized care.
- Hospital's **first living donor kidney transplant**. 73-year-old UAE national patient received new kidney donated by her son.
- **New Smoking Cessation Program** launched and certified by Department of Health – Abu Dhabi.

MAY

- **Green Commercial Building of the Year Award** from 2017 MENA Green Building Awards in recognition of the hospital's environmentally friendly design and operations.

JUNE

- Surgeons performed **rare and complex operation to replace two heart valves severely damaged by cancer**. Multidisciplinary team worked to treat the tumor and its complications by replacing the heart valves using an open-chest procedure.

JULY

- 20 patients received transformative surgery at Cleveland Clinic Abu Dhabi through **Operation Smile**, the charity committed to providing thousands of free operations to people suffering from cleft lips and palates.

AUGUST

- **First endoscopic sleeve gastropasty weight loss procedure performed in Cleveland Clinic health system**. Procedure is minimally invasive allowing patient discharge the day after the surgery.

SEPTEMBER

- Hospital's **first deceased donor kidney transplant** after patient suffered from kidney disease for nine years.
- Hospital launched **World Heart Day campaign** with new survey of social attitudes towards heart disease.

OCTOBER

- Hospital launched **Cleveland Clinic Abu Dhabi - Al Ain**, integrating full team and state-of-the-art diagnostic imaging resources from the Tawam Molecular Imaging Centre. Selected services include cardiology, digestive disease and general medicine.

NOVEMBER

- **His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE**, conferred the **Independence Order of First Class** on Dr. Toby Cosgrove, CEO of Cleveland Clinic, in recognition of his contributions to the health sector in the UAE and for the establishment of Cleveland Clinic Abu Dhabi.

DECEMBER

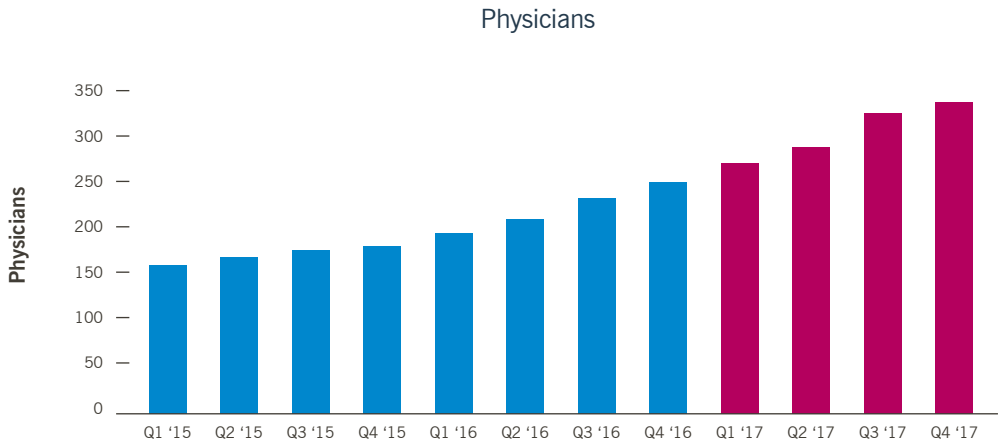
- Hospital completed **first multi-organ transplant including UAE's first heart transplant** and one kidney transplant from a deceased donor.
- Hospital achieved several key roadmap goals in 2017, including **adding 114 new beds** to reach its planned capacity of 364.

CAREGIVERS

The total number of nationalities at the hospital is **77**.

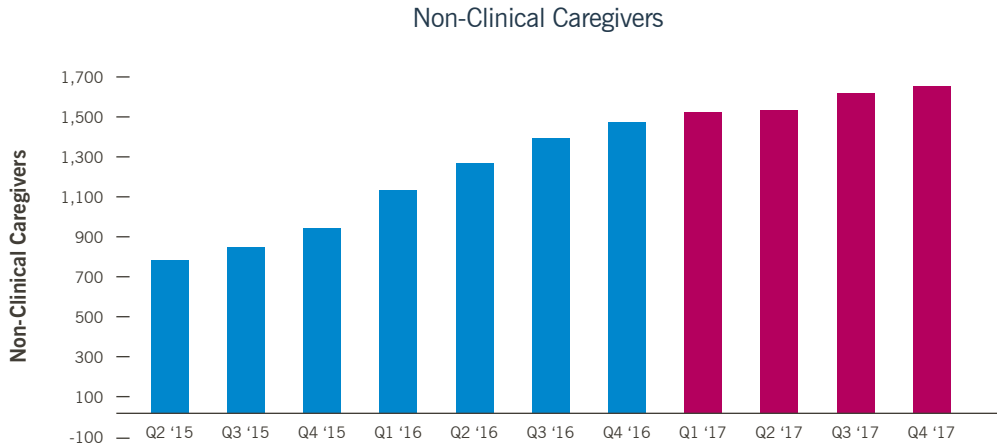
Physicians

By the end of 2017, Cleveland Clinic Abu Dhabi employed 340 physicians, an increase of 35%. 24% of Cleveland Clinic Abu Dhabi physicians have been trained or worked at Cleveland Clinic in the US, and 38% are Arabic speaking.



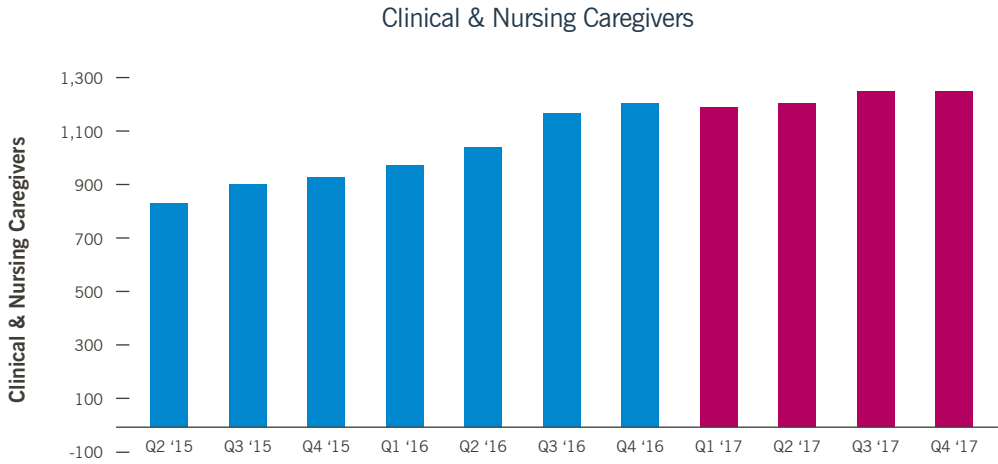
Non-Clinical Caregivers

The number of non-clinical caregivers reached 1,253, an increase of 4%.



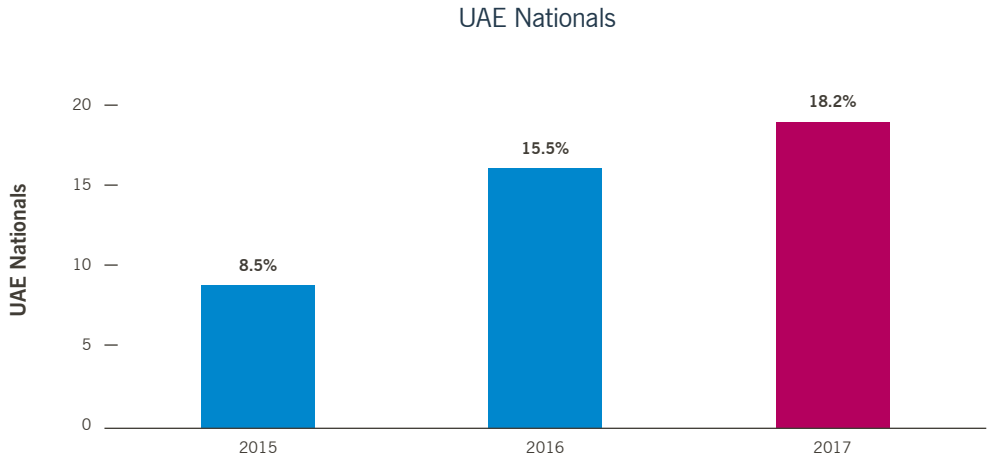
Clinical & Nursing Caregivers

The number of Clinical & Nursing caregivers reached 1,665, an increase of 13%.



Emiratization

Recruiting, developing and retaining talented UAE nationals across the hospital remains a top priority. The proportion of UAE national caregivers within the total employee population reached 18.2% by the end of 2017.



ACCREDITATION, CERTIFICATIONS, AWARDS

The following certifications and accreditations were received in 2017:



Department of Health – Abu Dhabi Licenses

- Transplant program
- Smoking cessation
- Gynecology
- Cleveland Clinic Abu Dhabi - Al Ain

Pathology & Laboratory Medicine Institute



ISO 22870 Point of Care Testing



ISO 15189



Re-accreditation by the College of American Pathologists

Operations



HACCP (Hazard Analysis Critical Control Point)



ISO 22000:2005 Food Safety



ISO 9001:2015 Food Services Department



RESEARCH AND EDUCATION

Medical Education

- Completed 112 clinical trainee experiences in observerships, clinical placements and research
- Achieved a total of 619.75 Continuing Medical Education (CME) hours accredited for CME activities
- Launched Cleveland Clinic Abu Dhabi Physician Internship Program and added nine UAE national physicians to the workforce
- Launched a first-of-its-kind Physician Internship Program with Cleveland Clinic in the US
- Launched Cleveland Clinic Lerner College of Medicine Lecture Series
- Applied for Arab Board accreditation and completed ACGME-I application, readiness for residency programs
- Initiated the Research Volunteer Program for students to come to Cleveland Clinic Abu Dhabi
- Launched the Knowledge Exchange Program to enhance academic collaboration between Cleveland Clinic Abu Dhabi and Cleveland Clinic clinicians
- Hosted SEHA Cardiac Fellows to complete their cardiac surgery training requirements

Clinical & Nursing Education

- Launched Junior Caregiver Program, introducing more than 40 local teenagers to careers in healthcare
- Expanded academic partnerships with post-graduate programs at Case Western Reserve University (CWRU), Ohio, and The Royal College of Surgeons of Ireland (RCSI), Bahrain, with 15 nurses enrolled in the DNP program (CWRU) and 24 enrolled in the MSN program (RCSI)
- Launched Return to Practice Program (RTP) in collaboration with Department of Health and SEHA
- Student clinical placements with Fatima College, UAEU, Sharjah University, Gulf Medical University and others for nursing, physiotherapy, radiography, social work, dietetics, and pharmacy
- Graduate internships for nursing, pharmacy, medical laboratory science, radiography, dietetics, physiotherapy

Research

- Launched 55 research projects, including Cleveland Clinic Abu Dhabi's participation in the Abu Dhabi cohort study
- Recruited research administrator, research nurse coordinators and research scholars
- Initiated multiple research collaborations with New York University Abu Dhabi, Khalifa University, Cleveland Clinic and Zayed University

INSURANCE PARTNERS

In 2017, Cleveland Clinic Abu Dhabi added four new insurance partners and expanded contracts to cover more lives with several payers, including Daman, NEXtCARE, and Oman Insurance Company.

Our services are also available to self-paying patients. For more information, call **800 8 CCAD (800 8 2223)**.



The Department of Health – Abu Dhabi has officially designated Cleveland Clinic Abu Dhabi as a Center of Excellence for adult cardiothoracic surgery, chest pain, stroke, and STEMI (ST-Elevation Myocardial Infarction). Cleveland Clinic Abu Dhabi works with insurance companies to receive the necessary approvals to treat patients on a direct billing basis for these conditions.

Patients with all levels of Daman Enhanced plans (excluding Networks 6 and 8) may come to Cleveland Clinic Abu Dhabi for inpatient treatment and same-day procedures.



STAY CONNECTED

800 8 CCAD (800 8 2223)
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