

STATE OF THE CLINIC | 2016



“Avon is a new kind of hospital for a new era in healthcare. The design reflects everything we’ve learned about 21st-century care.”

— *Toby Cosgrove, MD*
CEO and President

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CEO'S ADDRESS

Dear Friend:

We are pleased to present the 2016 State of the Clinic Annual Report. This booklet is published each year in conjunction with our annual State of the Clinic address as part of our commitment to transparency, and to provide an overview of Cleveland Clinic's performance across a range of key metrics.

Cleveland Clinic continues to serve a growing number of patients at all locations. We opened a new, full-service hospital in Avon, Ohio. We will be dedicating our new main campus cancer building in March 2017, as work continues on the Cleveland Clinic–Case Western Reserve University Health Education Campus on Euclid Avenue. At Cleveland Clinic Florida, building is underway for a new bed tower for our hospital in Weston.

This year, for the first time, Cleveland Clinic is ranked the No. 2 hospital overall in *U.S. News & World Report's* annual "Best Hospitals" survey. We rank No. 1 in Cardiology & Heart Surgery; No. 2 in Urology, Nephrology, and Gastroenterology & GI Surgery; No. 3 in Diabetes & Endocrinology, Gynecology, Pulmonology, Rheumatology, and Orthopaedics; No. 6 in Neurology; and No. 8 in Cancer, Geriatrics and Ophthalmology; and are the No. 1 hospital in Ohio.

Cleveland Clinic is building for the future of patient care and the future of our communities. Looking ahead, we are transforming healthcare for the value-based era, expanding access, improving quality and working to make healthcare more affordable.

Our goal is to give every patient the best outcome and experience. Thank you for your interest in Cleveland Clinic.

Sincerely,

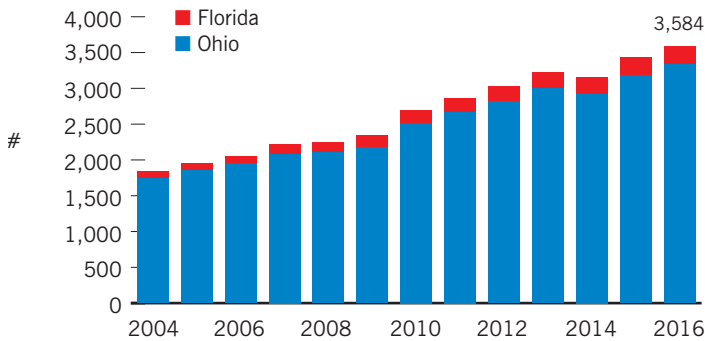
A handwritten signature in black ink, appearing to be 'DM' with a stylized flourish at the end.

Delos "Toby" M. Cosgrove, MD

CEO and President

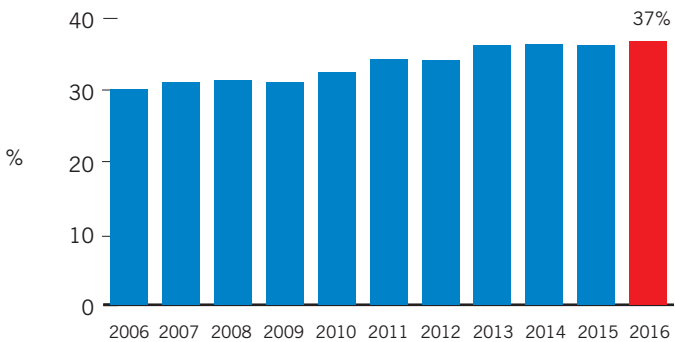
CAREGIVERS

Professional Staff



In 2016, the number of professional physician staff and scientists at all locations increased by 4% to 3,584.

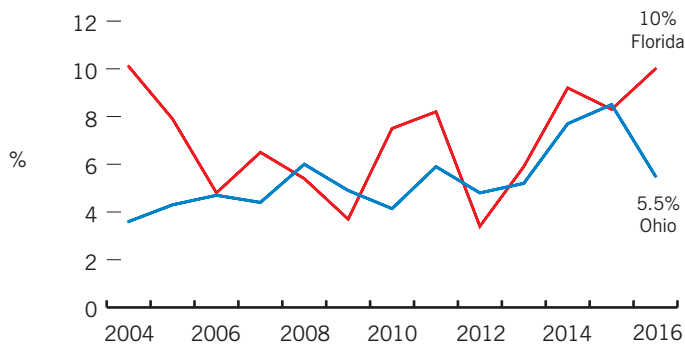
Female Professional Staff



The percentage of women on Cleveland Clinic's professional staff rose to 37% in 2016.

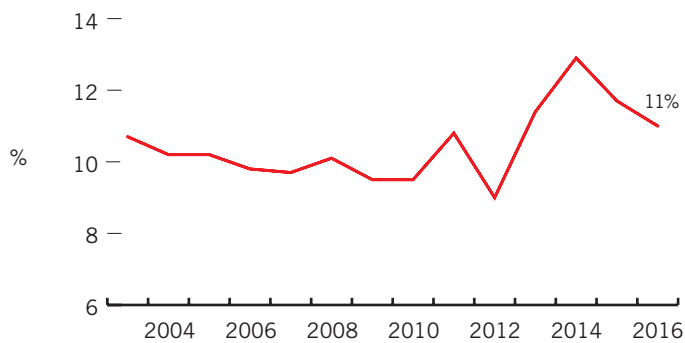
CAREGIVERS

Professional Staff Turnover



In 2016, staff turnover dropped to 5.5% in Cleveland; in Florida, the rate was 10%.

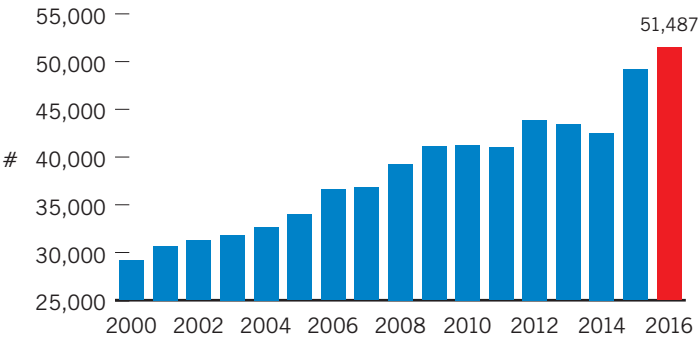
Caregiver Employee Turnover



Turnover among main campus caregivers in support roles averaged 11% in 2016. Cleveland Clinic turnover is lower than the national benchmark of 13.4%.

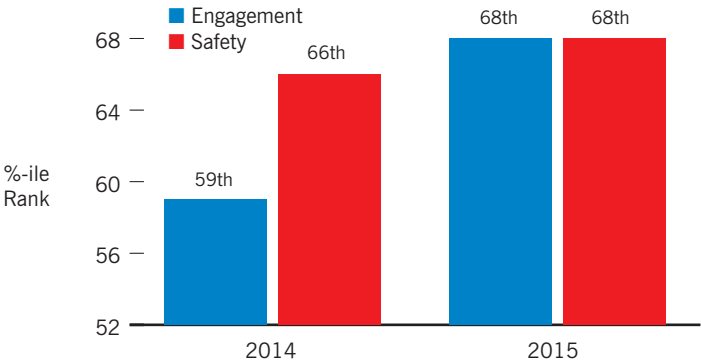
CAREGIVERS

Caregiver Employees



In 2016, the number of caregivers increased to 51,487 at year-end. Akron General joined the health system in 2015.

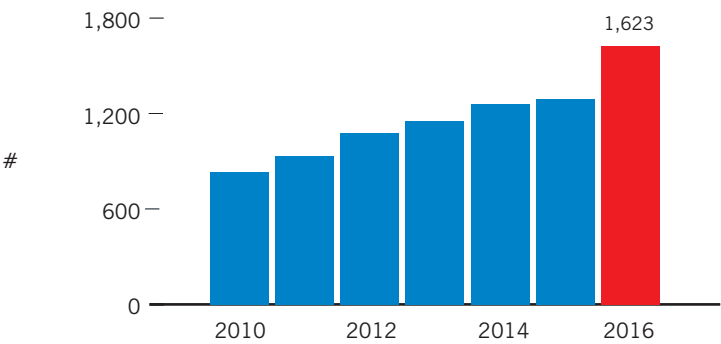
Caregiver Survey



In the annual caregiver survey from 2014 to 2015, caregiver impressions of both engagement and safety culture improved. The next caregiver survey will be completed in 2017.

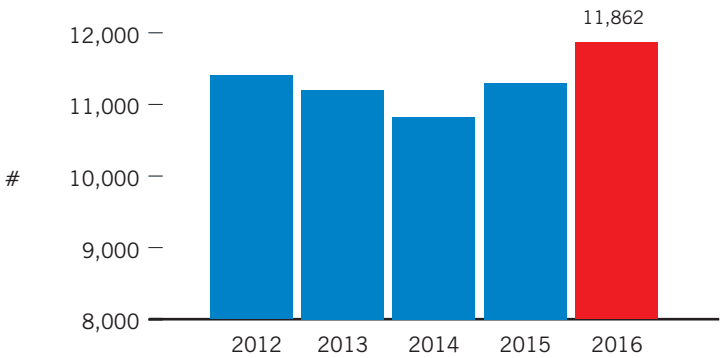
CAREGIVERS

Advanced Practice Providers



In 2016, advanced practice providers across the health system totaled 1,623.

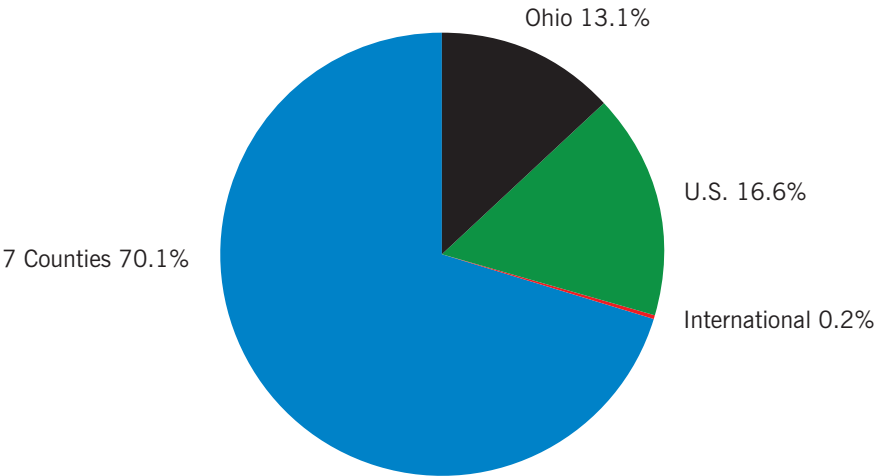
Nurses



Registered nurses across the health system totaled 11,862 in 2016.

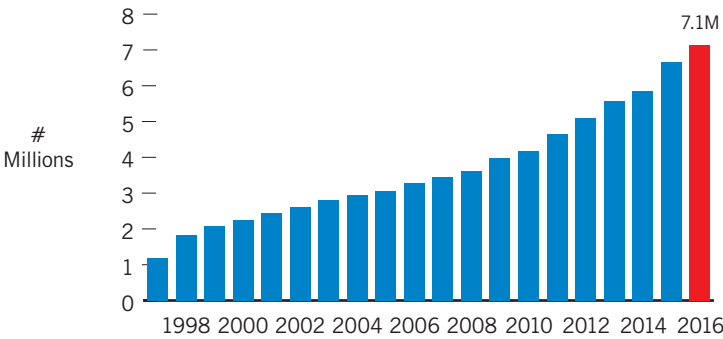
CLEVELAND CLINIC HEALTH SYSTEM

Patient Distribution



In 2016, 70% of patients came from Cleveland and the adjacent seven counties. Patients from the rest of the United States increased in 2016.

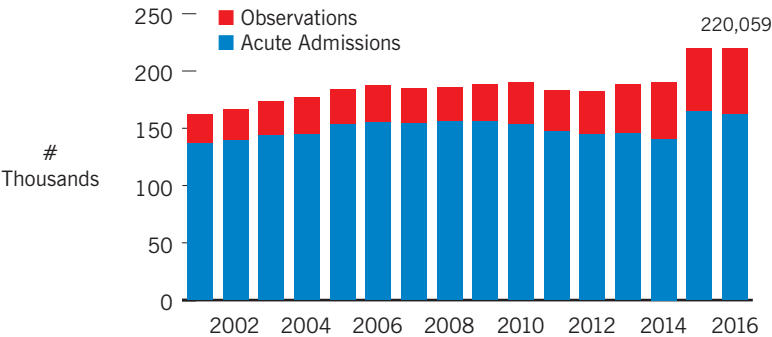
Outpatient Visits



The total number of outpatient visits for Cleveland Clinic health system exceeded 7.1 million in 2016, an increase of 7%.

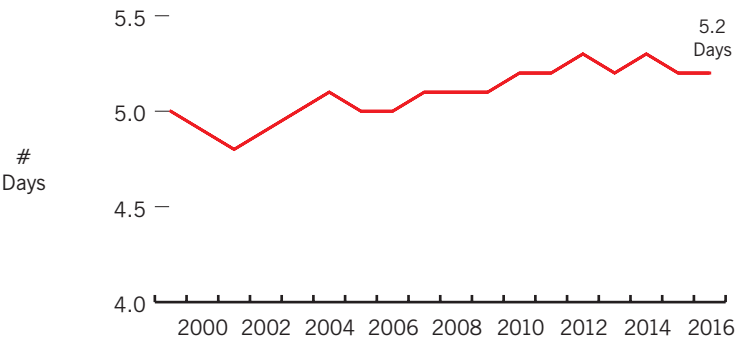
CLEVELAND CLINIC HEALTH SYSTEM

Acute Admissions and Observations



In 2016, adult acute admissions across the health system decreased slightly to 161,674 and observations increased to 58,385, for a total of 220,059.

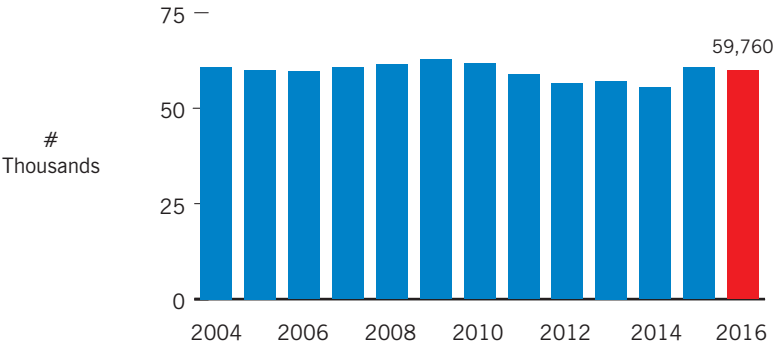
Average Length of Stay



CCHS average length of stay remained consistent from 2015 to 2016 at 5.2 days.

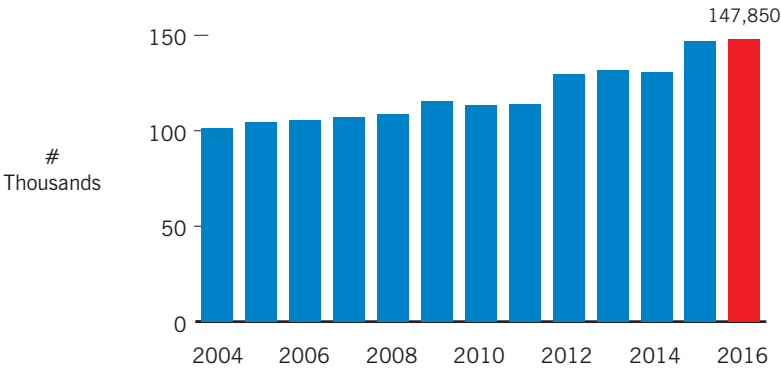
CLEVELAND CLINIC HEALTH SYSTEM

Surgical Cases – Inpatient



Inpatient surgery across the system decreased slightly to 59,760 cases in 2016.

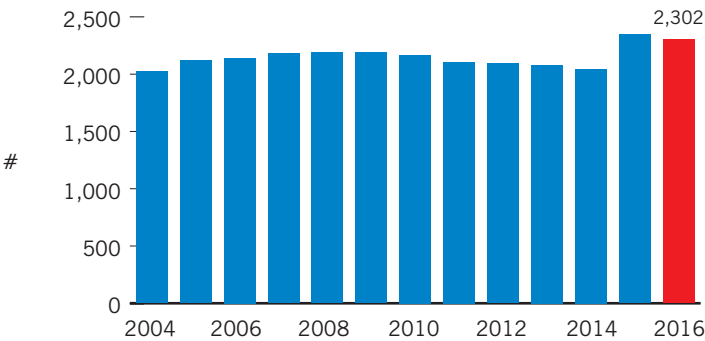
Surgical Cases – Outpatient



Outpatient surgeries across the system increased slightly to 147,850 in 2016.

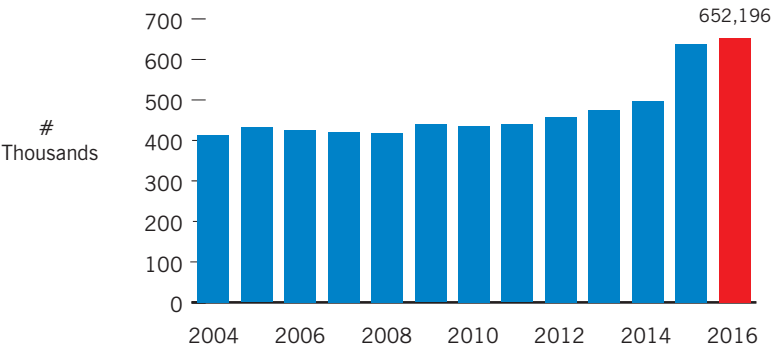
CLEVELAND CLINIC HEALTH SYSTEM

Average Daily Census



The health system had an average daily census of 2,302 in 2016.

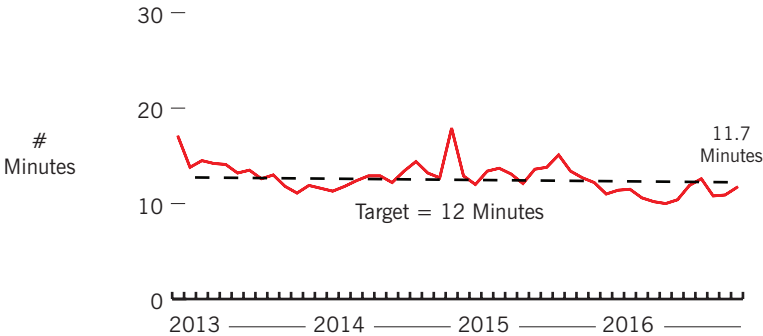
Emergency Department Visits



In 2016, emergency visits across the system increased to 652,196. Akron General joined the health system in 2015.

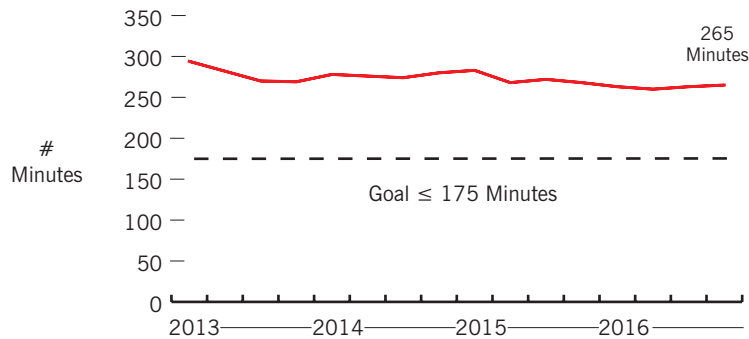
CLEVELAND CLINIC HEALTH SYSTEM

Emergency Departments Door to Doctor Time



The time it takes a patient to be seen by a physician or licensed independent practitioner in the emergency department (ED) is a key quality and throughput metric. Across the system, the EDs averaged 11.7 minutes in 2016, below the national target of 12 minutes.

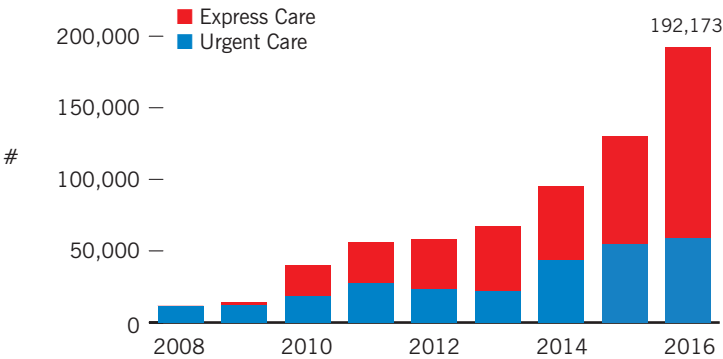
ED Length of Stay Arrival to Admission



The time it takes a patient to be admitted to the hospital from the emergency department continues to decrease.

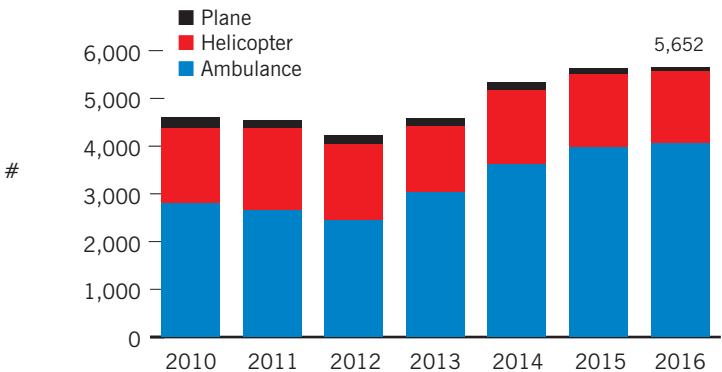
CLEVELAND CLINIC HEALTH SYSTEM

Urgent and Express Care Visits



In 2016, express care visits increased by 76% to 133,333 due to the opening of six new sites — Wadsworth, Solon, Broadview Heights, downtown Cleveland, Mentor and Olmsted Township. Urgent care visits across the system increased to 58,840.

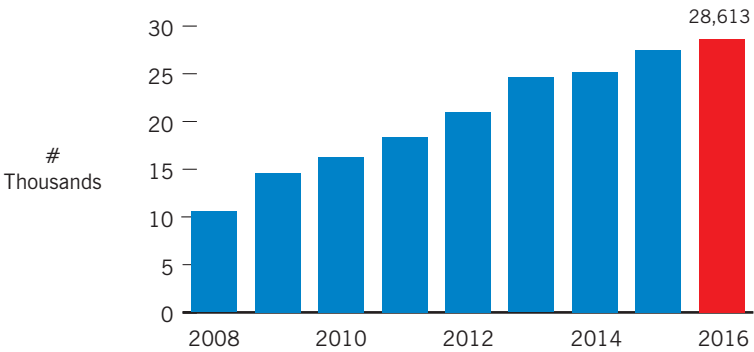
Critical Care Team Transports



In 2016, the critical care transport team transported more than 5,600 patients to Cleveland Clinic.

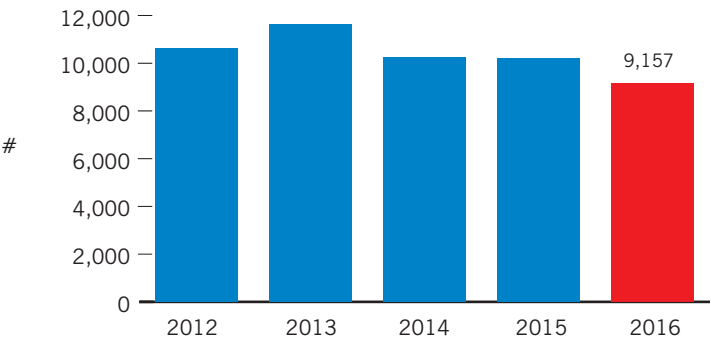
CLEVELAND CLINIC HEALTH SYSTEM

Hospital Transfers



Hospital transfers increased to more than 28,600 in 2016.

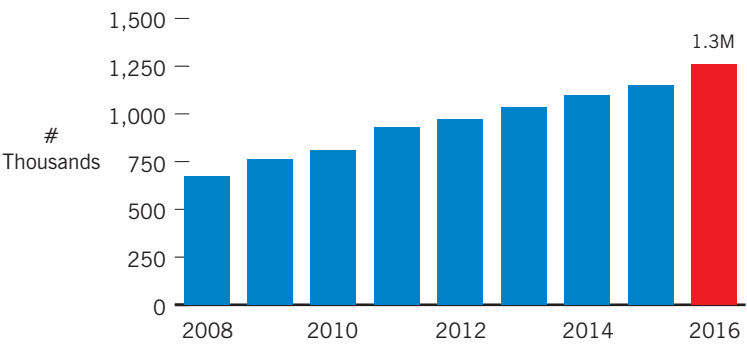
External Transfers into CCHS



In 2016, external transfers from other hospitals into CCHS dropped by 10% to 9,157 due to hospital consolidation across Northeast Ohio. Akron General is now a part of Cleveland Clinic health system, and its patients are counted as internal transfers.

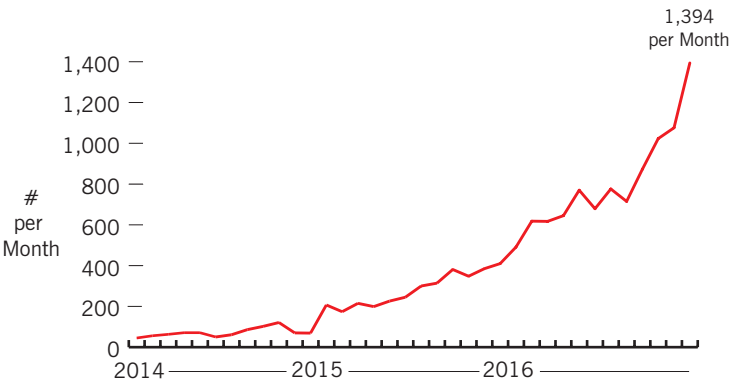
CLEVELAND CLINIC HEALTH SYSTEM

Same-Day Visits



In 2016, same-day visits increased 10% to almost 1.3 million.

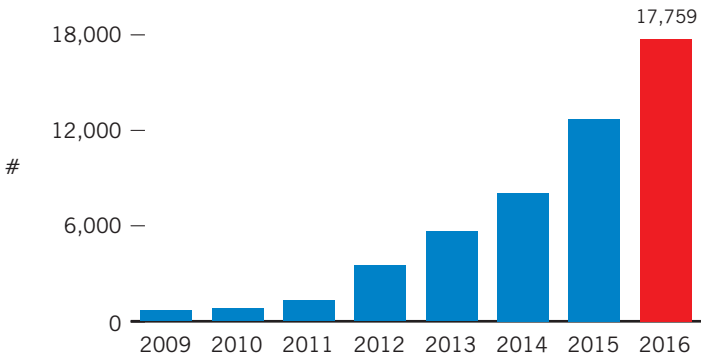
Virtual Visits



There were 9,700 virtual visits completed in 2015-2016, peaking at almost 1,400 per month. These include Express Care Online and postop visits, Telestroke acute stroke response, neurological inpatient consults, dermatology tele-triage, patient-requested second opinions and nutrition consults.

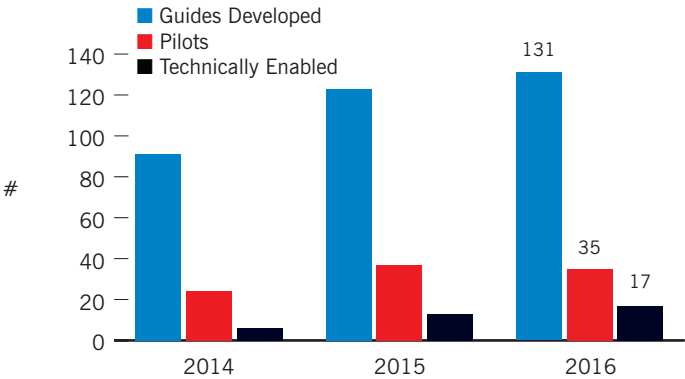
CLEVELAND CLINIC HEALTH SYSTEM

Shared Medical Appointments



Shared medical appointments bring patients with common diagnoses together in a setting that encourages asking questions and sharing concerns and experiences. In 2016, shared medical appointments grew 40% to over 17,700 visits.

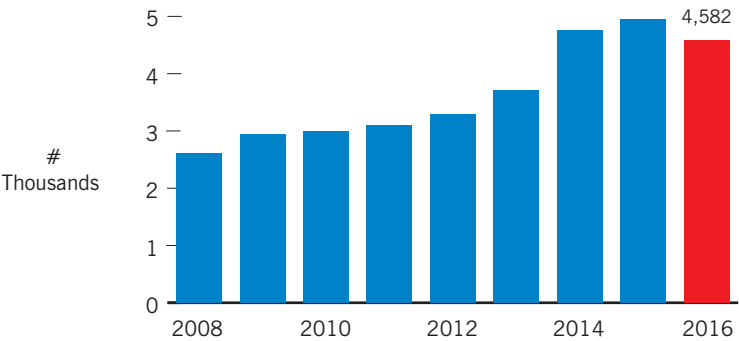
Care Paths



A care path is an established, multidisciplinary care plan used to optimize the value of care by reducing unnecessary practice variation. As of 2016, 131 care path guides had been developed, with 35 care paths piloted and 17 fully embedded in the electronic health record.

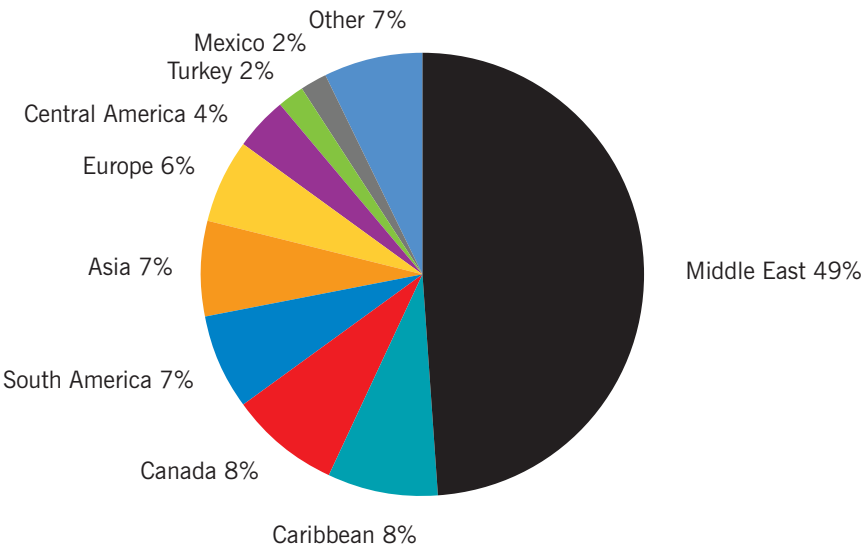
CLEVELAND CLINIC MAIN CAMPUS

International Patients



In 2016, main campus unique international patients decreased 7% to 4,582.

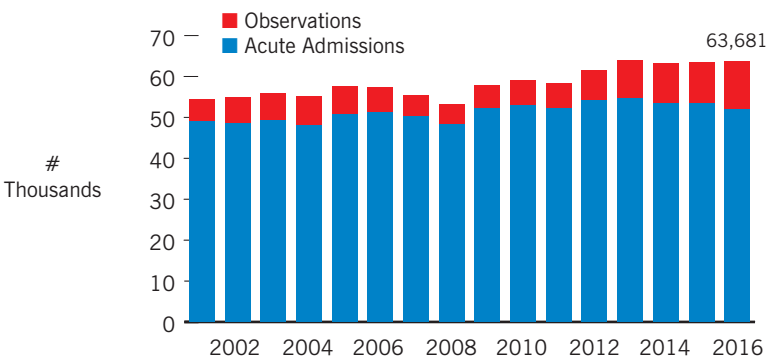
International Patients – Distribution



The Middle East continues to account for nearly half of all international patient visits.

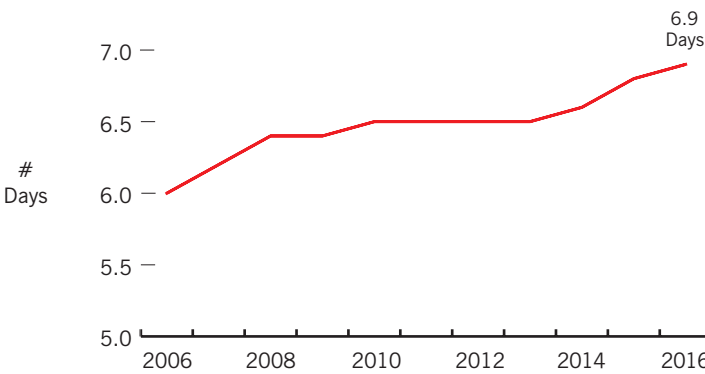
CLEVELAND CLINIC MAIN CAMPUS

Acute Admissions and Observations



In 2016, main campus acute admissions totaled 52,020 and observations totaled 11,661.

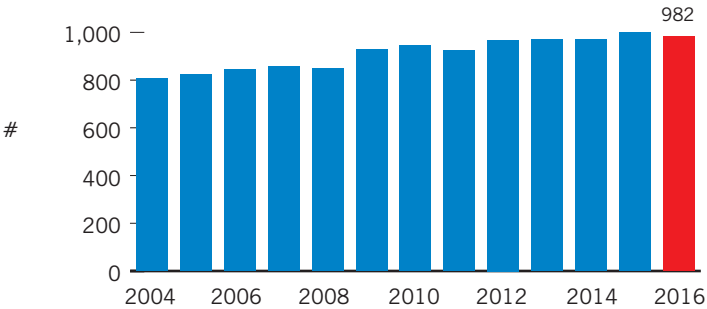
Average Length of Stay



In 2016, the main campus average length of stay increased 2% to 6.9 days.

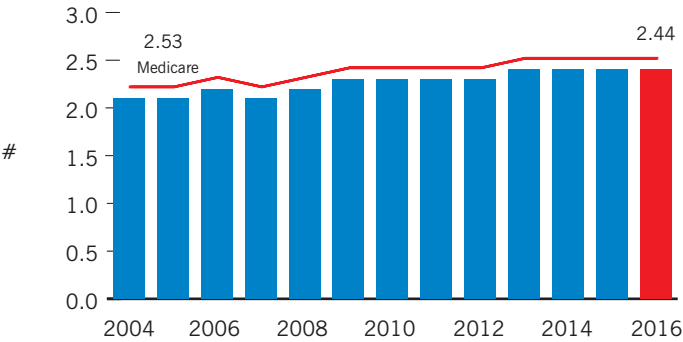
CLEVELAND CLINIC MAIN CAMPUS

Average Daily Census



The 2016 average daily census at main campus decreased 2% to 982 patients.

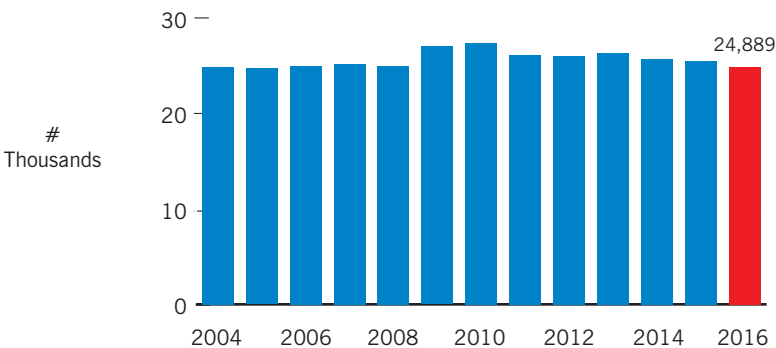
Case Mix



Cleveland Clinic's average case mix index increased to 2.44 while the Medicare case mix increased slightly to 2.53 in 2016.

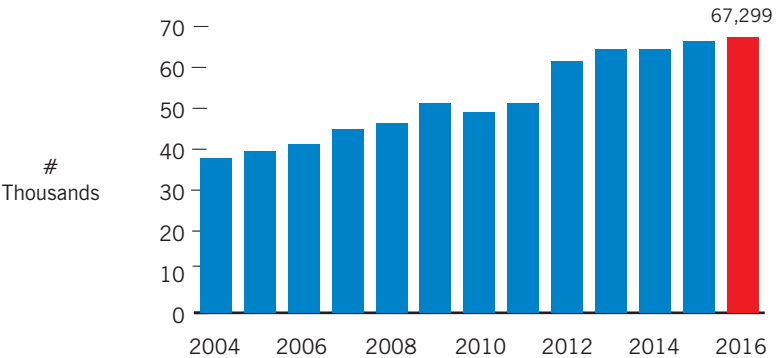
CLEVELAND CLINIC MAIN CAMPUS

Surgical Cases – Inpatient



Inpatient surgery at main campus decreased 2% in 2016 to 24,889 cases.

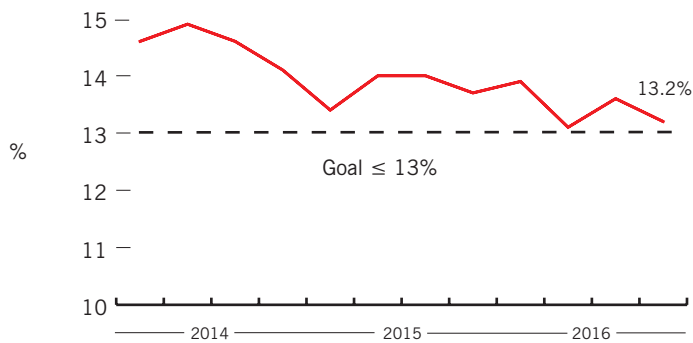
Surgical Cases – Outpatient



In 2016, main campus outpatient surgeries increased 2% to 67,299 cases.

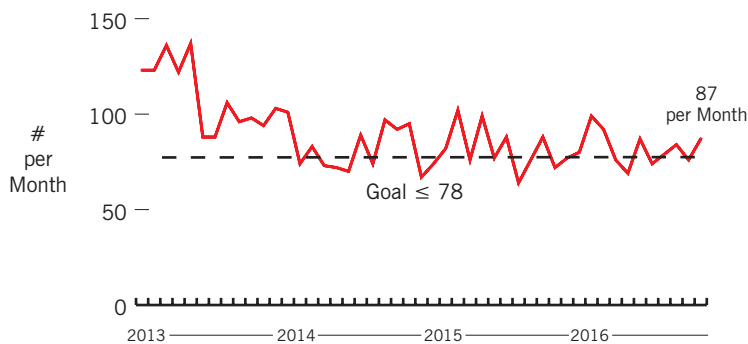
QUALITY & SAFETY

All-Cause Readmissions



All-cause readmissions continue to be a focus area for quality efforts. In 2016, readmissions decreased slightly to 13.2%.

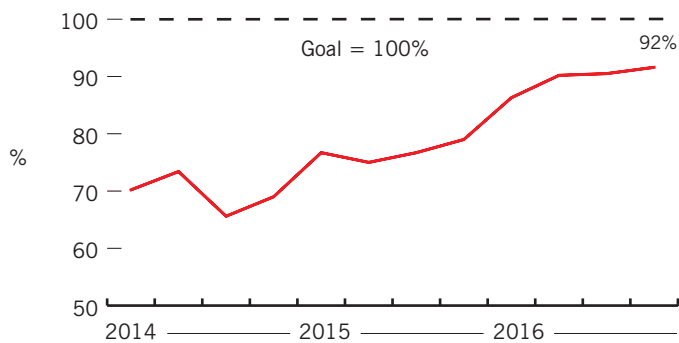
Patient Safety Indicators



Cleveland Clinic continues to work to reduce patient safety indicators, which are a set of measures that screen for adverse events. Our performance in these metrics is, on average, better than the national risk-adjusted average, though we continue clinical and documentation enhancements to improve further.

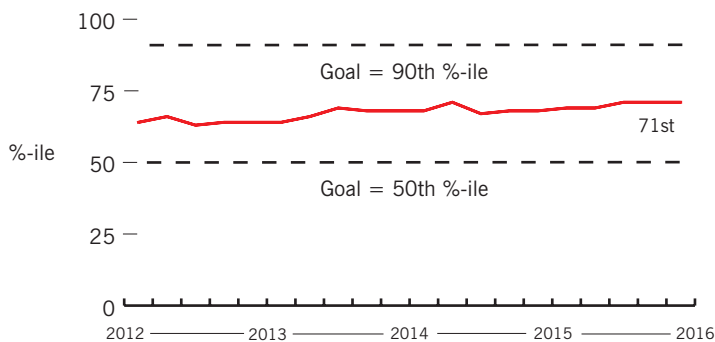
QUALITY & SAFETY

Hand Hygiene



Hand hygiene is the most effective intervention to stop the spread of infections. Hand hygiene compliance continues to increase, reaching 92% in 2016.

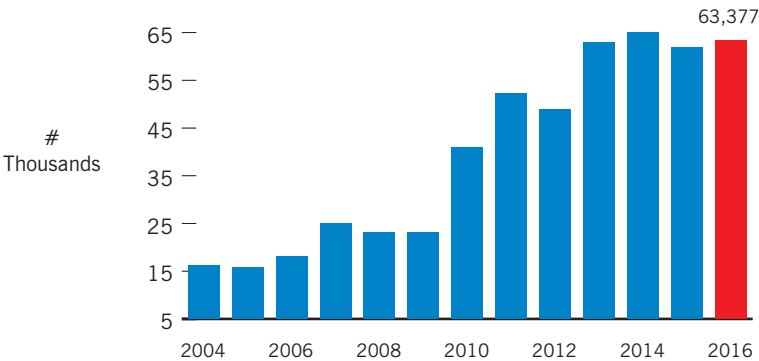
ACO Composite



The Accountable Care Organizations (ACO) composite measures how Cleveland Clinic compares in selected screenings, vaccinations, disease management and process measures. As of 2016, Cleveland Clinic ranks at the 71st percentile compared to other ACO health systems.

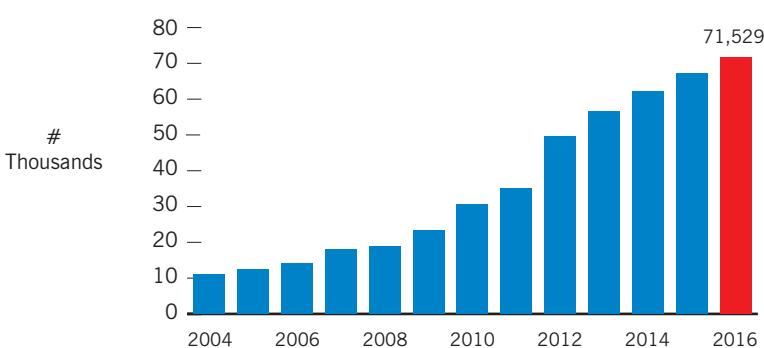
PATIENT EXPERIENCE

Web Contact Requests



In 2016, there were over 63,000 web requests and live chats for additional information on the clevelandclinic.org website.

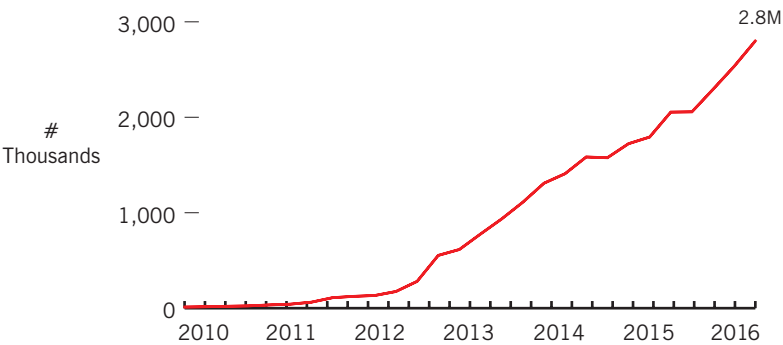
Online Appointment Requests



Online appointment scheduling requests increased to over 71,500 in 2016, a 7% increase from 2015.

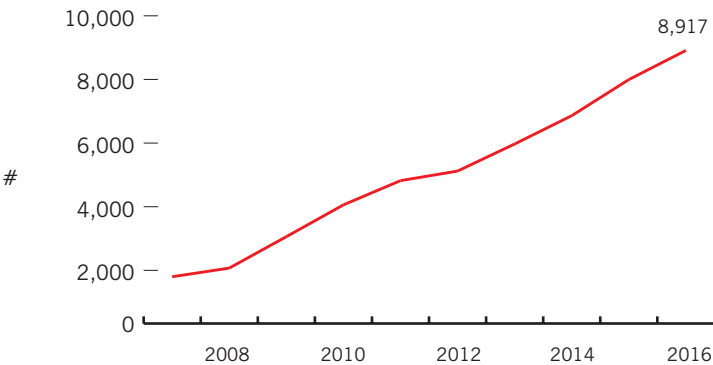
PATIENT EXPERIENCE

Social Media



Increasing numbers of people are interacting with us through social media. The combined number of Cleveland Clinic Facebook fans and Twitter followers totaled 2.8 million at the end of 2016.

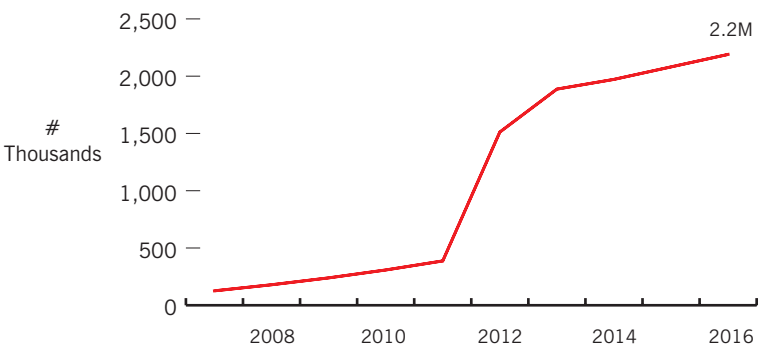
DrConnect Users



DrConnect now provides over 8,900 referring physicians with secure online access to real-time information about their patients' treatment progress while at Cleveland Clinic.

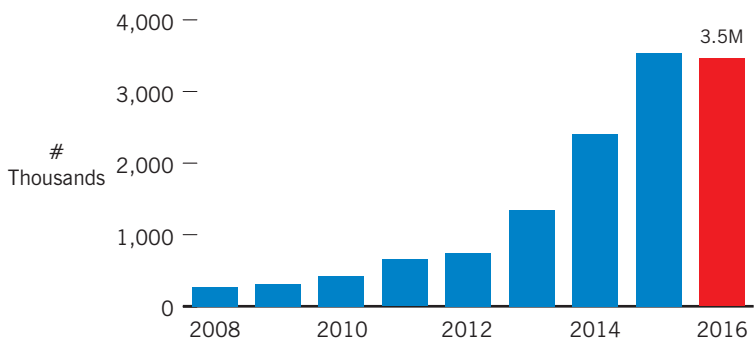
PATIENT EXPERIENCE

MyChart Users



Beginning in 2013, all patients with an appointment were automatically enrolled in MyChart. Nearly 2.2 million patients had MyChart accounts in 2016.

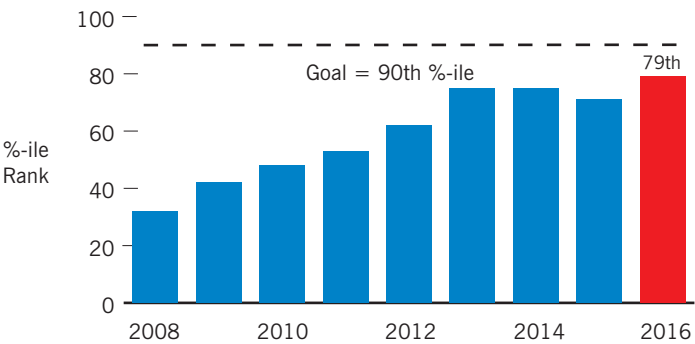
MyChart Messages



MyChart allows patients to send a secure message about a nonurgent medical concern to their established providers.

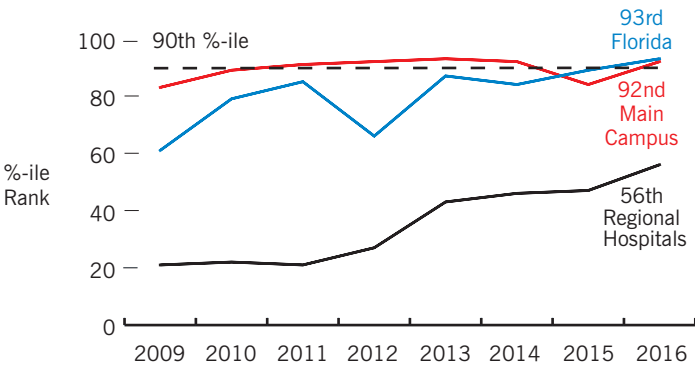
PATIENT EXPERIENCE

HCAHPS Patient Satisfaction



In 2016, patients rated Cleveland Clinic in the 79th percentile in patient satisfaction surveys. The goal is to reach the 90th percentile of all hospitals nationwide.

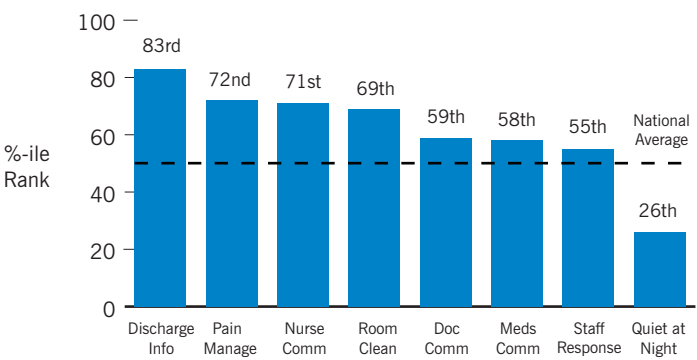
HCAHPS Rate Hospital



Main campus and Florida are rated at the top of all U.S. hospitals in HCAHPS scores, in the 92nd and 93rd percentiles respectively.

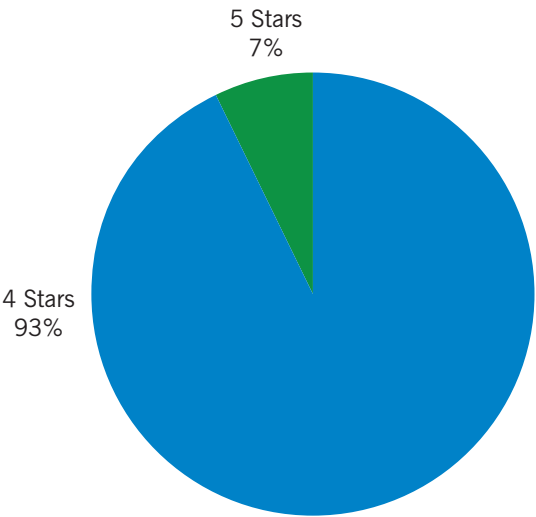
PATIENT EXPERIENCE

HCAHPS Patient Experience Domains



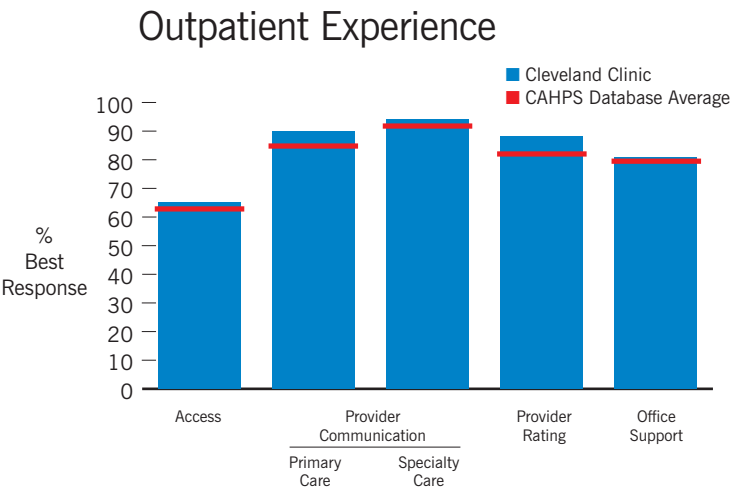
Steady improvement continues in the HCAHPS domain scores toward the 90th percentile goal. Discharge information ranks the highest at the 83rd percentile.

HCAHPS Physician Ratings

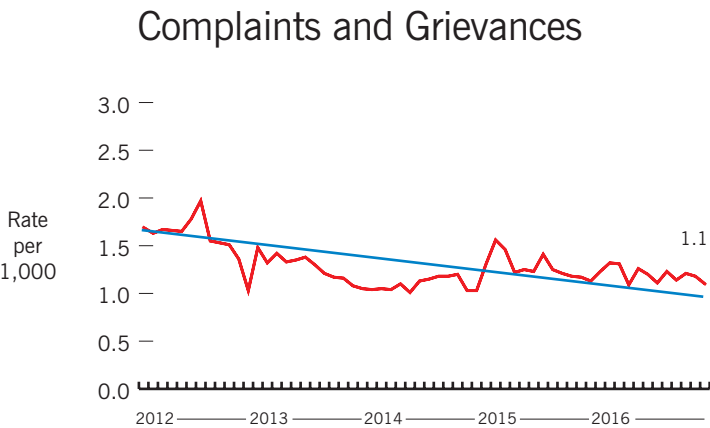


Physician star ratings show how individual physicians score on HCAHPS inpatient and outpatient surveys. All Cleveland Clinic physicians scored an average 4- or 5-star rating (of 5 available stars).

PATIENT EXPERIENCE



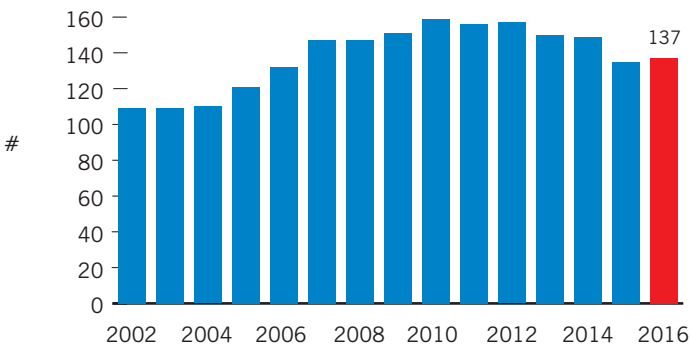
CG-CAHPS is the outpatient experience survey. Cleveland Clinic is above the national average and continues to improve in all domains of outpatient satisfaction.



The rate of patient complaints and grievances continues to trend downward, now at 1.1 per 1,000 patient encounters.

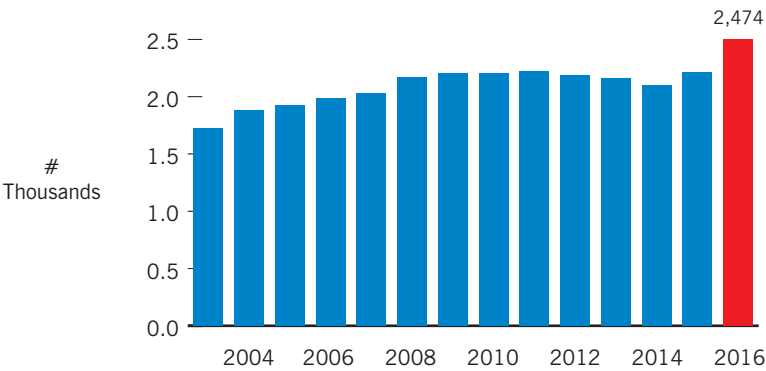
RESEARCH

Research Staff



In 2016, the Lerner Research Institute had 137 research staff.

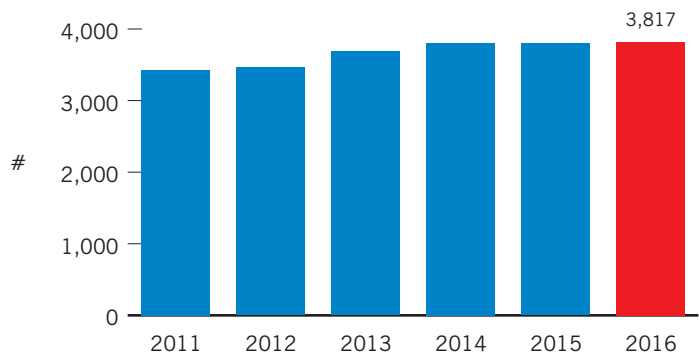
Research Activity



Research activity increased 12% to 2,474 active projects in 2016.

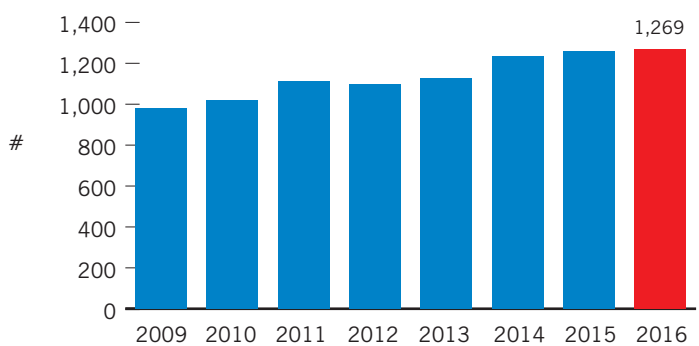
RESEARCH

Journal Publications



Cleveland Clinic had 3,817 journal publications in 2016.

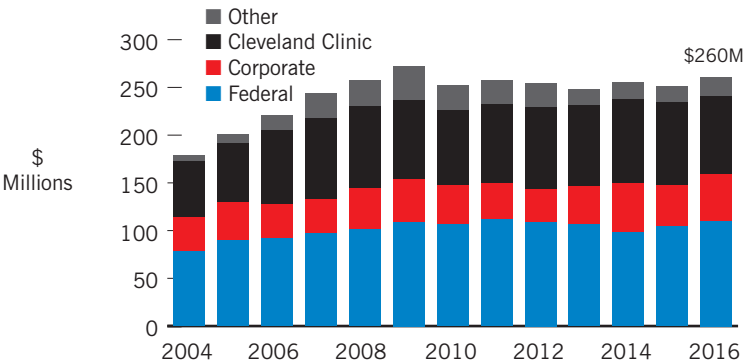
High-Impact Publications



High-impact publications are those in the highest-rated scientific journals. In 2016, Cleveland Clinic researchers published 1,269 high-impact findings.

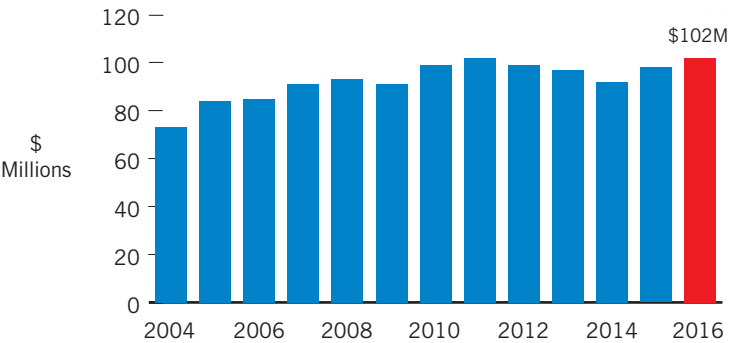
RESEARCH

Research Funding



Total research funding from all sources was \$260 million in 2016. This represents a 4% increase from 2015.

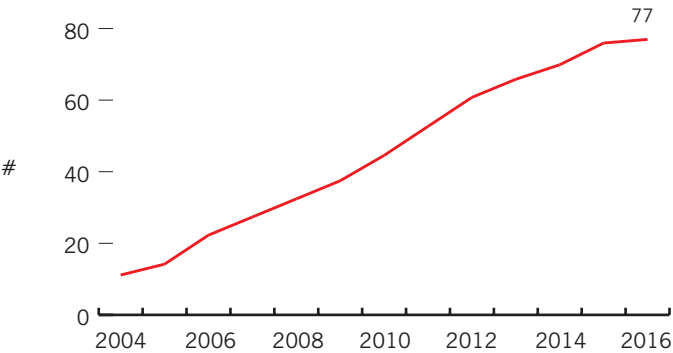
NIH Funding



NIH funding for Cleveland Clinic research projects was \$102 million in 2016, an increase of 4% from the prior year.

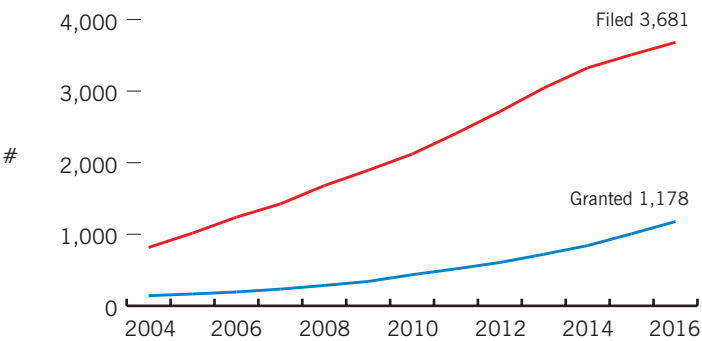
INNOVATION

Spin-Off Companies



Since its founding in 1997, Cleveland Clinic Innovations has spun off 77 companies from internally generated ideas.

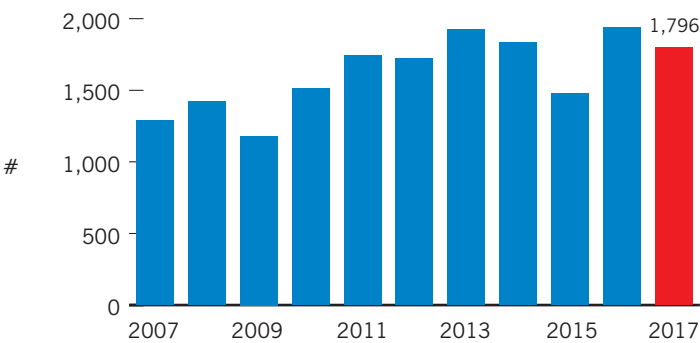
Patent Activity



Since 2000, Cleveland Clinic has filed 3,681 cumulative patents with 1,178 granted.

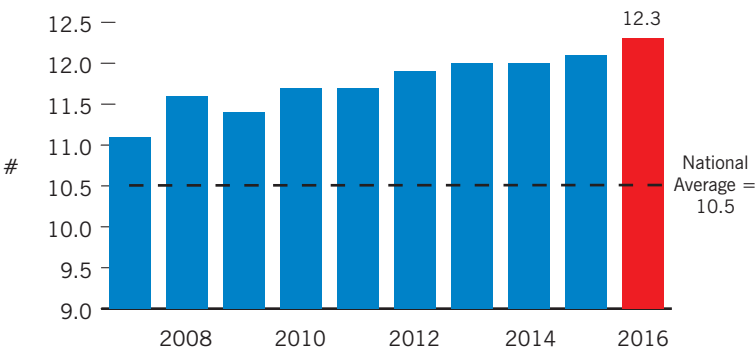
EDUCATION

Lerner College of Medicine Applications



The Lerner College of Medicine received 1,796 applications for 32 positions in the 2017 class.

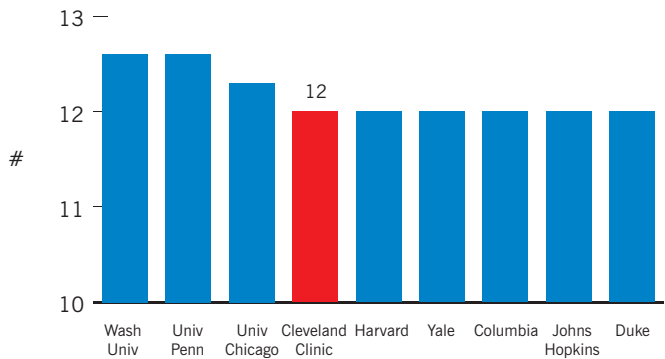
Lerner College of Medicine MCAT Scores



The average MCAT score of accepted Lerner College of Medicine applicants for the 2016 class continues to be above the national average.

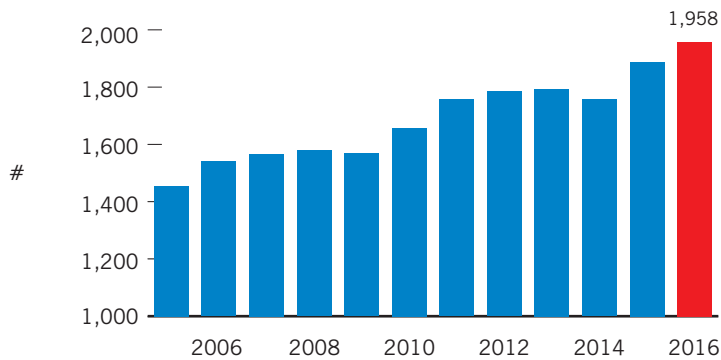
EDUCATION

Lerner College of Medicine
Comparative MCAT Scores



The 2015* MCAT scores of accepted Lerner College of Medicine medical students remain among the highest in the nation.

Residents and Fellows

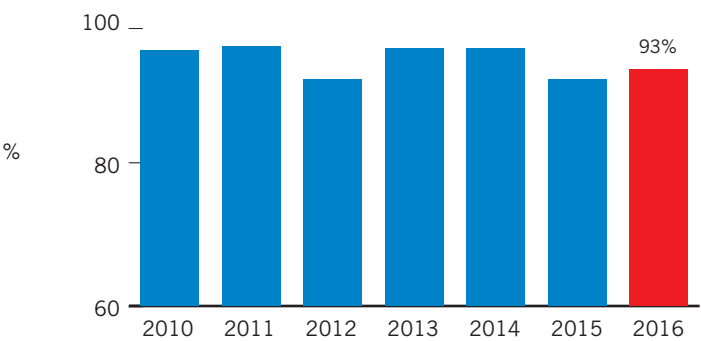


There were 1,958 clinical and research residents and fellows in 107 accredited training programs across the health system in 2016.

**indicates that the most recent validated year for MCAT scores data is 2015*

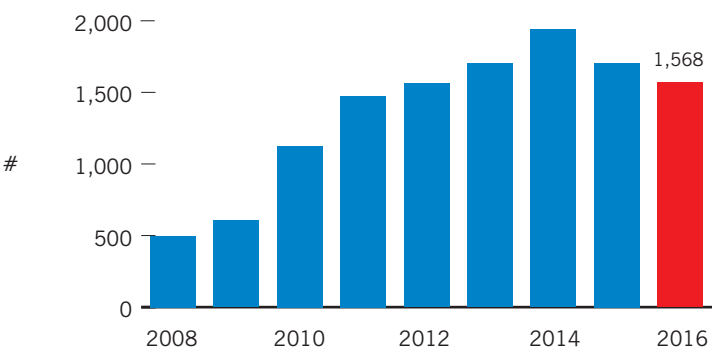
EDUCATION

Board Pass Rate



In 2016, Cleveland Clinic residents and fellows achieved a board pass rate of 93%.

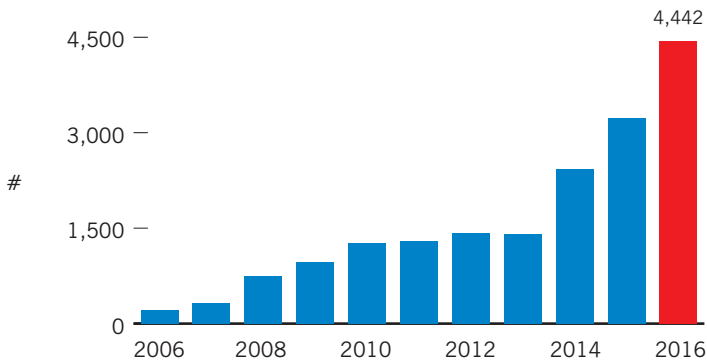
Continuing Medical Education Activities



In 2016, over 220,000 participants took part in 1,568 continuing medical education activities sponsored by the Education Institute.

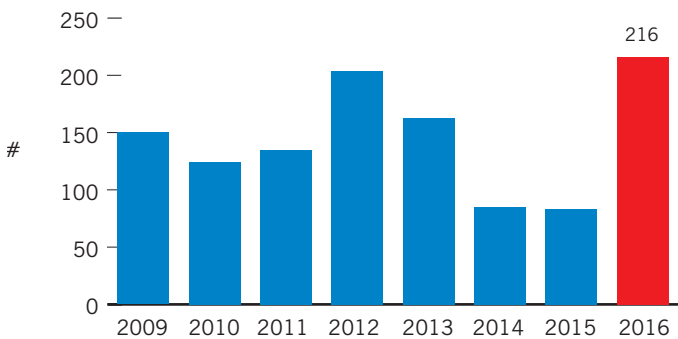
EDUCATION

Global Leadership and Learning Participants



In 2016, 4,442 caregivers across the system participated in Global Leadership and Learning courses designed to build professional competencies and leadership skills.

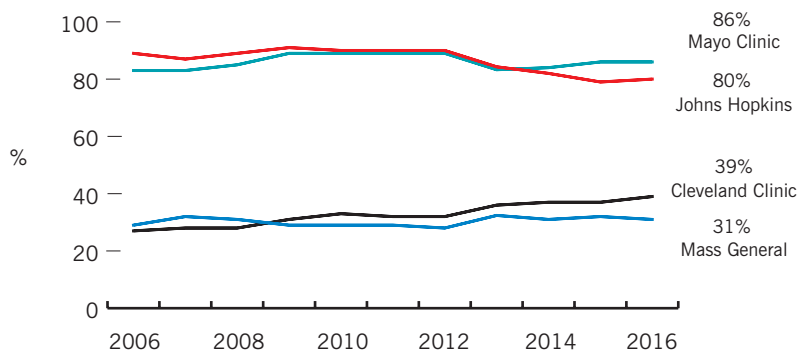
Civic Education Interns



In 2016, Cleveland Clinic welcomed 216 high school, college and graduate civic education interns across the system. The Stokes Scholars Summer Internship Program, a workforce readiness program for at-risk Cleveland high school students, launched in 2016.

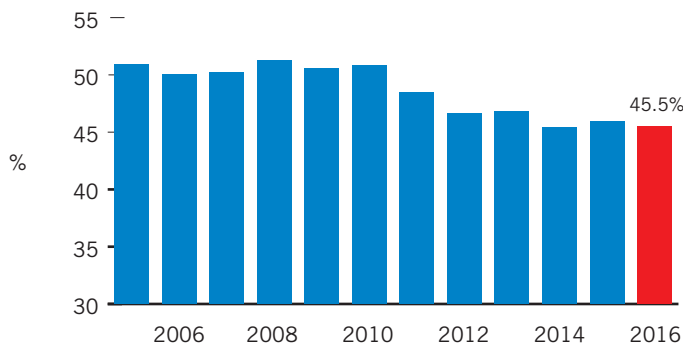
MARKET ANALYSIS

Brand Awareness



Brand awareness is measured by a survey of name recognition. Nationwide, 39% of the general population recognize Cleveland Clinic.

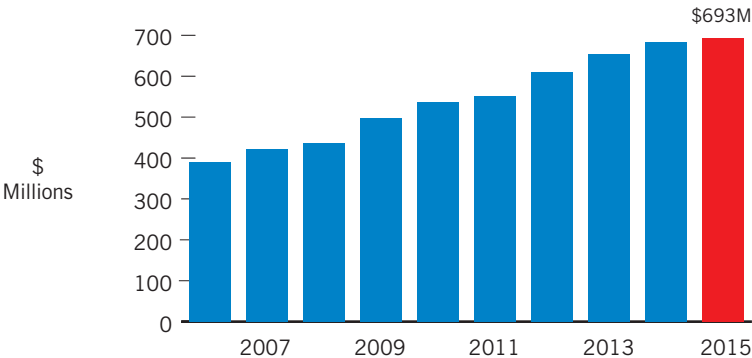
Market Share – Cuyahoga County



Cleveland Clinic hospital inpatient and outpatient market share in Cuyahoga County remained consistent at 45.5%.

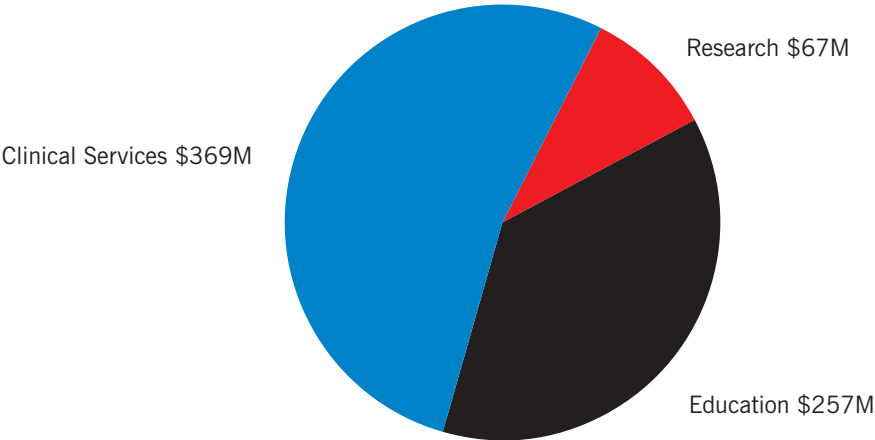
OUTREACH

Community Benefit 2015*



The Community Benefit provided across the health system continues to increase each year. It totaled \$693 million in 2015.

Community Benefit 2015*
Total \$693 Million

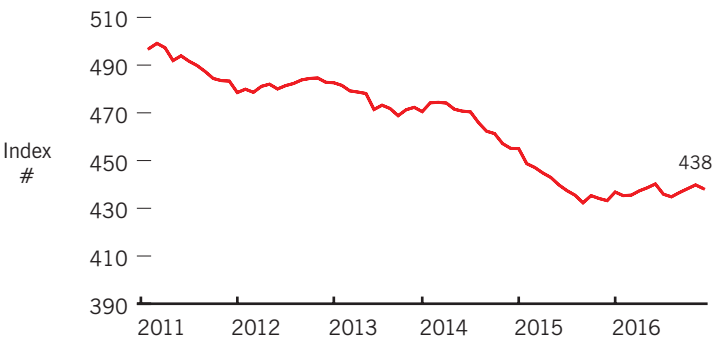


Cleveland Clinic provided over \$693 million in community benefit in 2015, including \$369 million in clinical services.

**indicates that the most recent validated year for Community Benefit data is 2015*

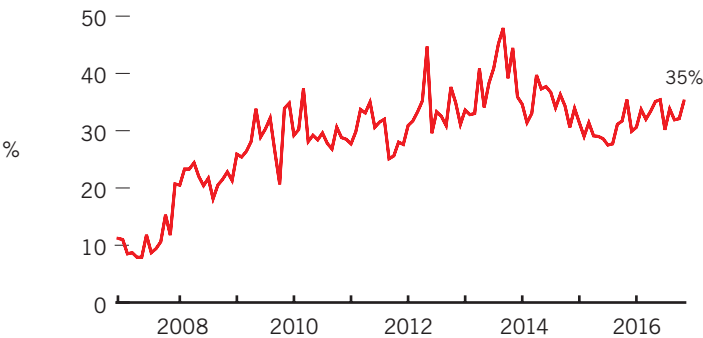
OUTREACH

Energy Usage



Cleveland Clinic is committed to reducing energy usage by 20% by 2020. Our progress improves air quality, making our patients, caregivers and communities healthier.

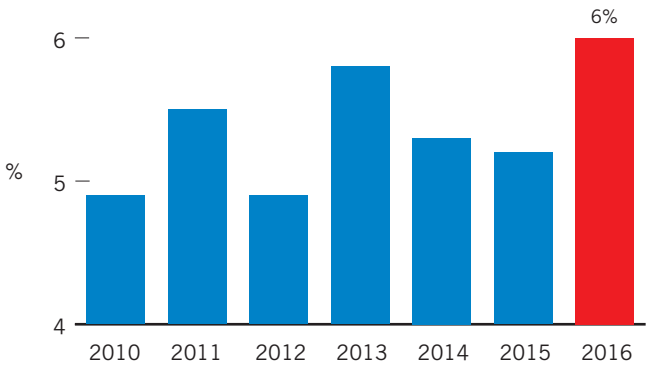
Recycled Waste



By engaging caregivers to minimize waste sent to landfills, we are protecting the environment, reducing costs, and improving land, air and water quality in our communities.

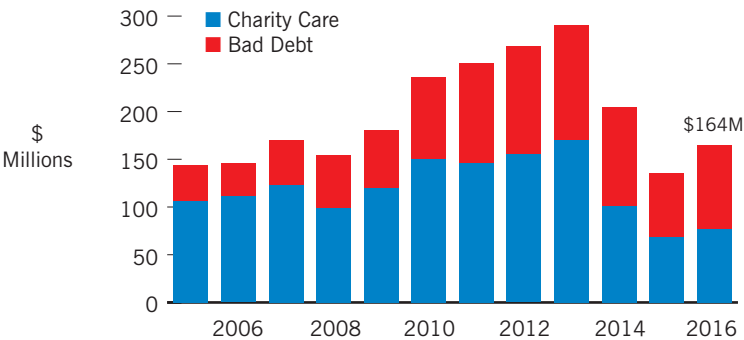
OUTREACH

Supplier Diversity



Supplier diversity continued to increase in 2016, reaching 6% of supply chain and construction spend going to women, minority and small business enterprises.

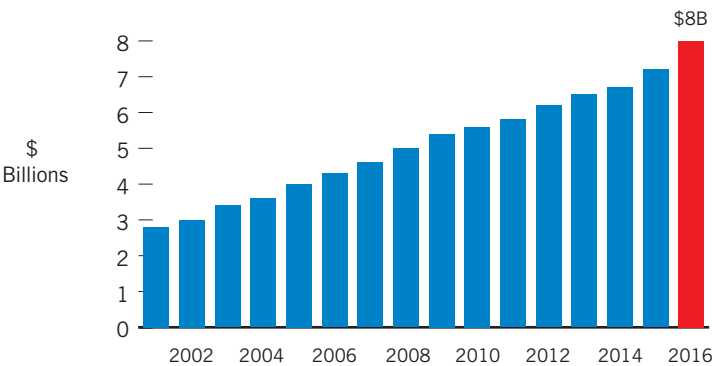
Uncompensated Care



Cleveland Clinic provided \$164 million in uncompensated care in 2016. The Affordable Care Act, Medicaid expansion and increased access to insurance have reduced the number of self-pay patients, accounting for the decrease from prior years.

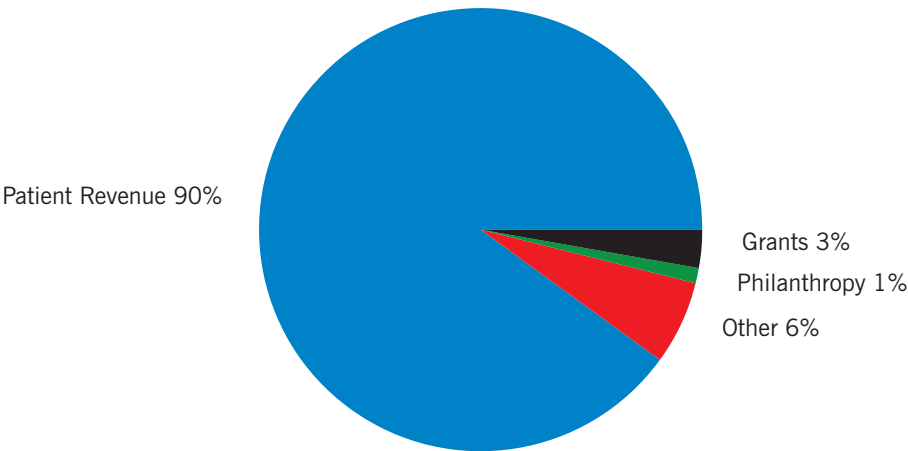
FINANCIAL

Operating Revenue



Operating revenue increased 12% to \$8 billion in 2016.

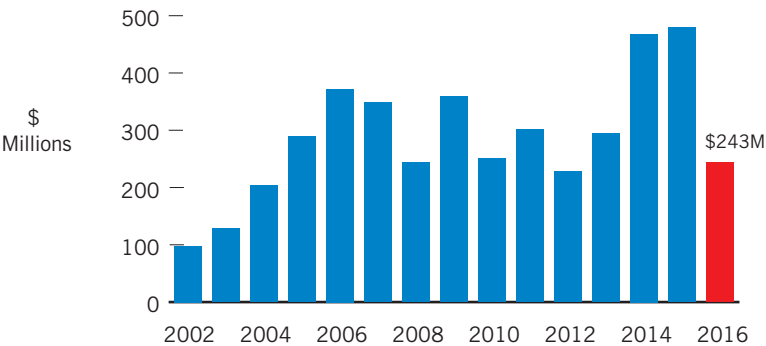
Operating Revenue Allocation



Patient care continued to account for 90% of operating revenue in 2016.

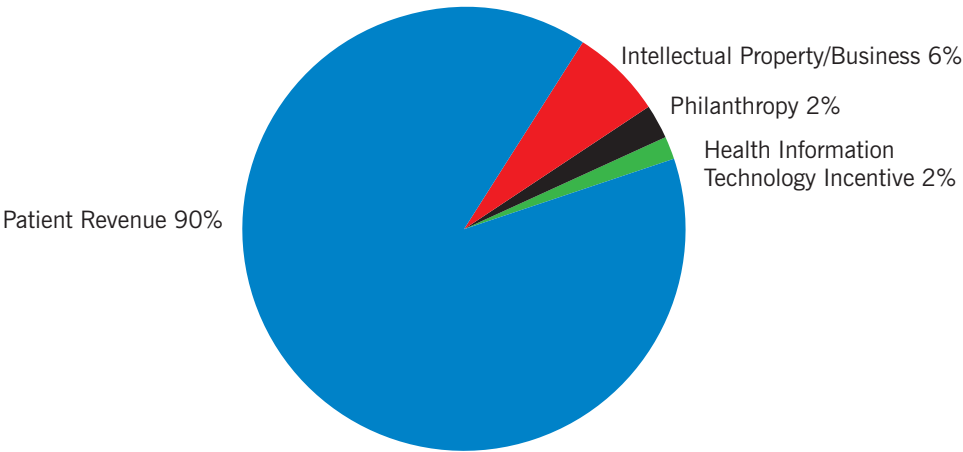
FINANCIAL

Earnings from Operations



Unaudited earnings based on current operations totaled \$243 million in 2016. Cleveland Clinic is experiencing the effects of nationwide healthcare transformation, with rising pharmaceutical costs and insurer changes.

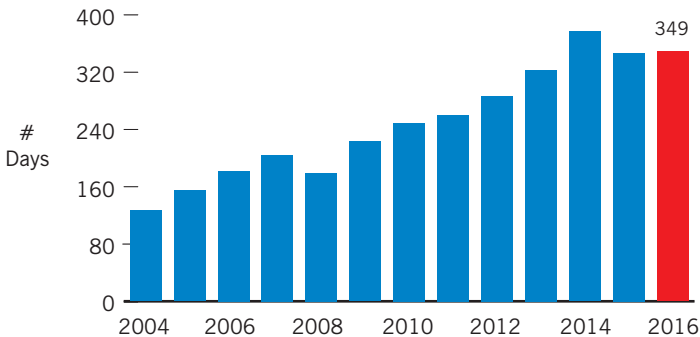
Earnings from Operations



Of the \$243 million in earnings from operations in 2016, \$218 million came from patient care.

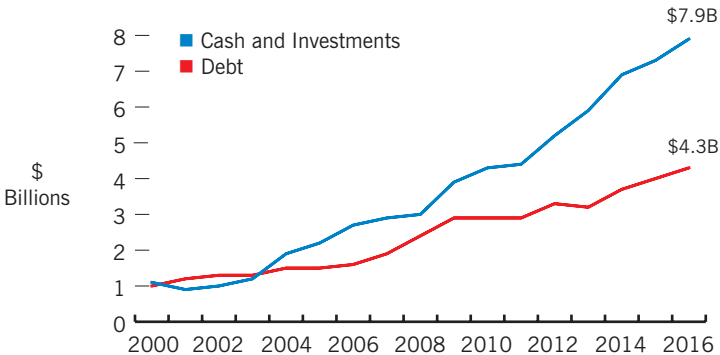
FINANCIAL

Days Cash on Hand



Days cash on hand measures Cleveland Clinic’s financial strength. In 2016, this metric increased to 349 days.

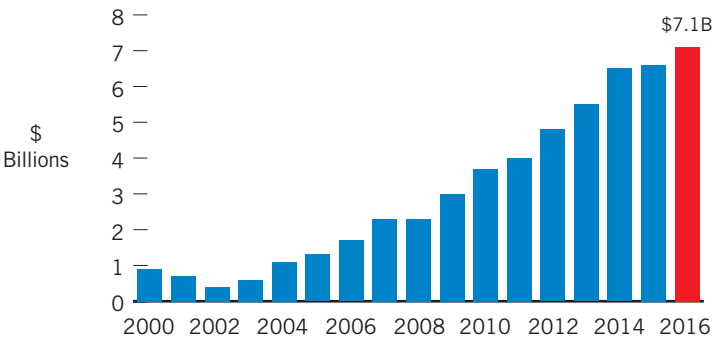
Cash, Investments and Debt



Total cash and investments increased to \$7.9 billion, as outstanding debt rose to \$4.3 billion. Cleveland Clinic uses debt to invest in capital growth.

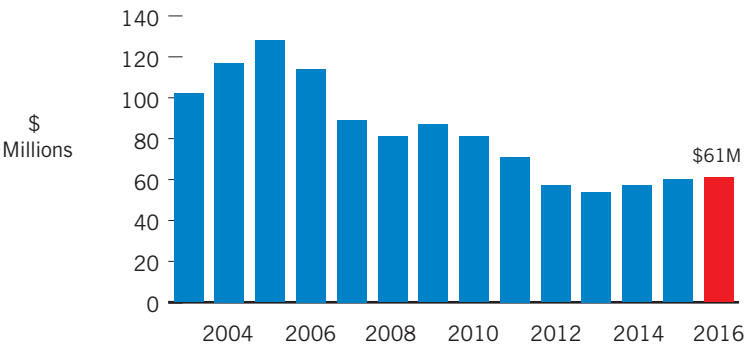
FINANCIAL

Long-Term Investments



Long-term investments totaled \$7.1 billion at the end of 2016. This increase from the prior year is attributable to strong cash flow from operations and positive investment returns.

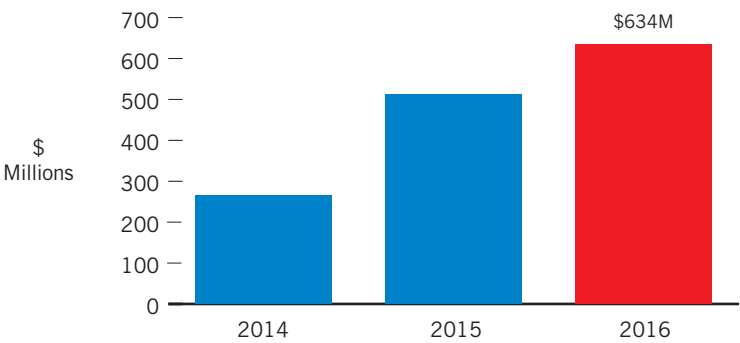
Malpractice Costs



Malpractice costs increased slightly to \$61 million in 2016.

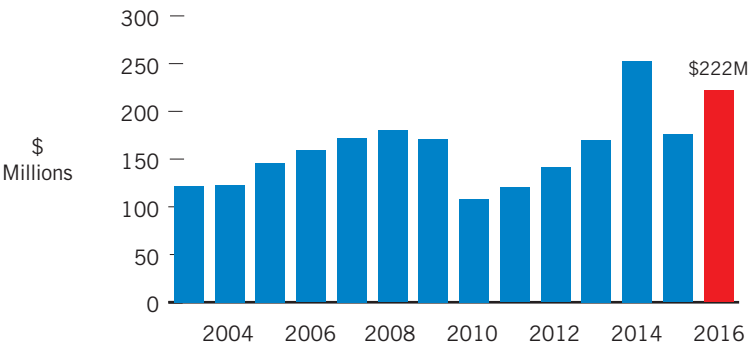
FINANCIAL

Care Affordability Savings



Care Affordability, the enterprise-wide cost transformation initiative, has delivered over \$634 million of cumulative financial benefit.

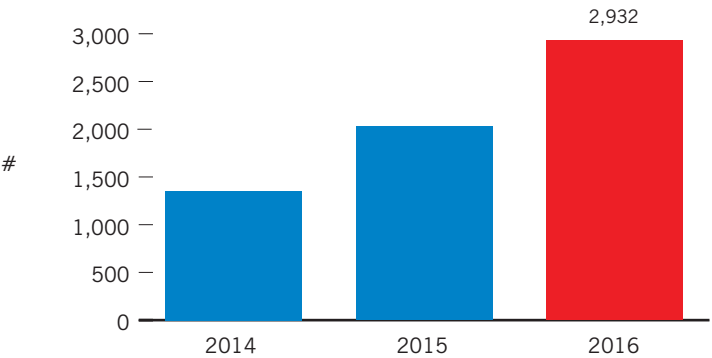
Philanthropy



Pledges and gifts from generous donors increased 26% to \$222 million in 2016.

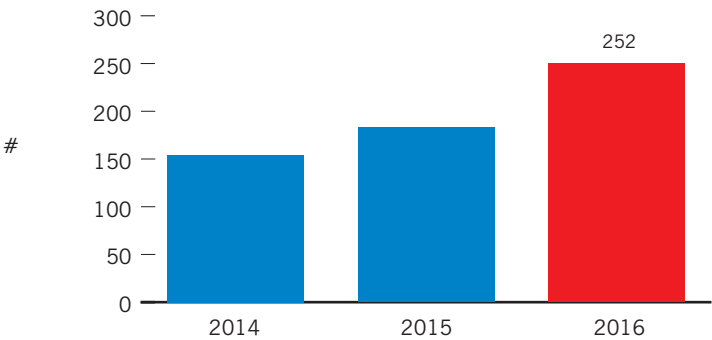
CLEVELAND CLINIC ABU DHABI

CCAD Caregiver Employees



Since its opening in 2015, the number of Cleveland Clinic Abu Dhabi (CCAD) caregivers has increased to 2,932 in 2016. CCAD caregivers represent 77 nationalities.

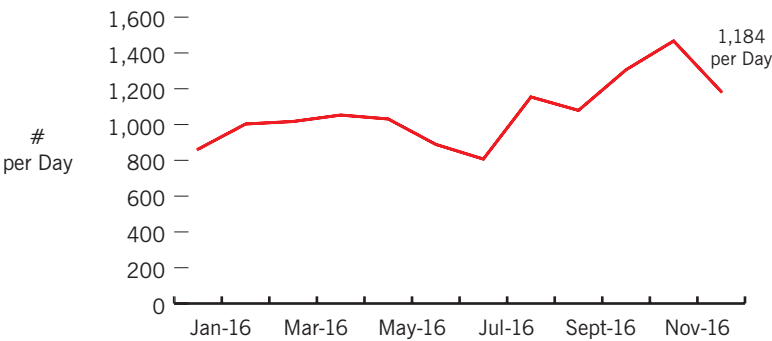
CCAD Professional Staff



The number of physicians at Cleveland Clinic Abu Dhabi increased to 252 in 2016. 24% of CCAD physicians have been trained or worked at Cleveland Clinic in Ohio.

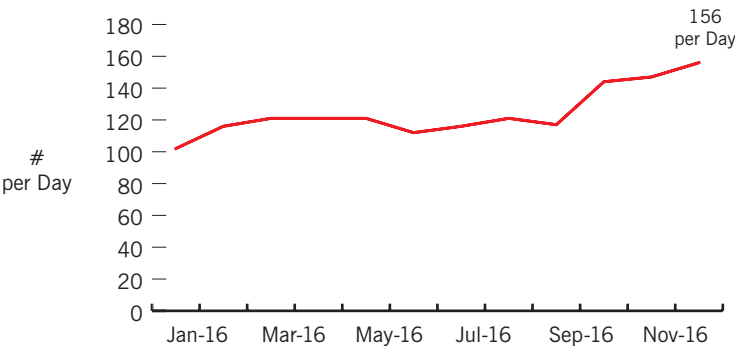
CLEVELAND CLINIC ABU DHABI

CCAD Outpatient Visits



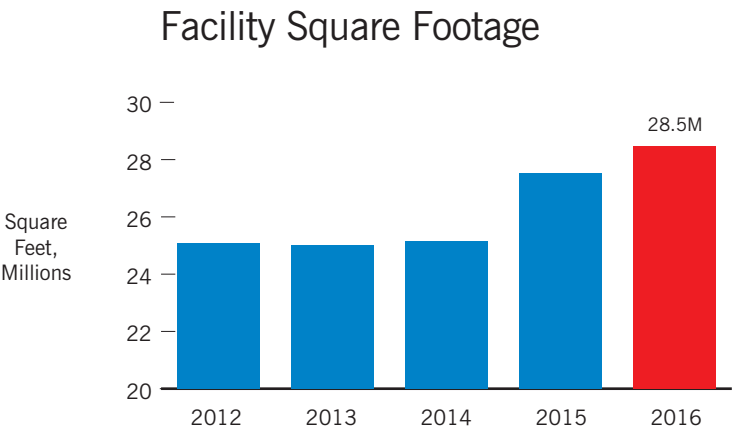
Outpatient visits per day for Cleveland Clinic Abu Dhabi averaged 1,184 as of December 2016. Currently, patients travel from over 60 countries for care at CCAD.

CCAD Inpatient Census



Cleveland Clinic Abu Dhabi's inpatient census averaged 156 patients per day as of December 2016.

COMPLETED GROWTH



Cleveland Clinic continues to grow, reaching 28.5 million square feet of facility space in 2016.

105th Street Caregiver Parking Garage



The nine-story caregiver parking garage was completed in November 2016. The project included additional features to enhance caregiver safety. The pedestrian skyway across East 105th Street will be completed in fall 2017.

COMPLETED GROWTH

Avon Hospital Roseann Park Family Tower



A new five-story “hospital of the future” has opened adjacent to the Richard E. Jacobs Health Center in Avon, Ohio, with 126 beds, six operating rooms, an intensive care unit, a catheterization lab and an expanded emergency department.

Express Care – Downtown



The first downtown Cleveland walk-in Express Care Clinic opened in October 2016 at 313 Euclid Ave., off Public Square. The facility includes six exam rooms and is staffed by a team of providers, including physician assistants and nurse practitioners. This location expands access for the growing population living and working downtown.

COMPLETED GROWTH

Holiday Inn



Opened in May 2016, this nine-story hotel at Euclid Avenue and East 86th Street includes 276 rooms, a fast casual restaurant and bar. The Holiday Inn offers additional accommodation options for patients and families who travel to main campus for care.

“You will either step forward into growth, or you will step backward into safety.”

~ Abraham H. Maslow

FUTURE GROWTH

Cleveland Clinic Akron General Emergency Department



The new facility will triple the size of the current emergency department to 59,000 square feet. This Level 1 trauma center includes 53 treatment bays, eight triage rooms and four high-acuity trauma rooms. The ED opens in November 2018.

Coral Springs Family Health Center



Design is underway for a 73,100-square-foot, three-story outpatient facility in Coral Springs, Florida, which will include four ambulatory surgery operating rooms and 42 exam rooms. The building is scheduled to open in summer 2018.

FUTURE GROWTH

Health Education Campus



The new home of the Cleveland Clinic Lerner College of Medicine, Case Western Reserve University (CWRU) School of Medicine, CWRU School of Dental Medicine and Frances Payne Bolton School of Nursing. The building is being designed by Foster+Partners in London and opens for first students in July 2019.

IBM Watson Health Building



The two-story, 43,000-square-foot building at 10500 Cedar Ave. will house the IBM healthcare data analytics enterprise. In 2016, Cleveland Clinic and IBM entered a five-year agreement to expand Cleveland Clinic's health information technology capabilities. The facility is scheduled to open in summer 2018.

FUTURE GROWTH

Lakewood Family Health Center



Designed as part of the Lakewood medical neighborhood, the three-story, 64,700-square-foot facility includes 60 exam rooms and 16 emergency department treatment bays. The building is scheduled to open in 2018.

Cleveland Clinic Rehabilitation Hospital – Bath



Developed in partnership with Select Medical, the two-story, 72,500-square-foot facility includes 60 beds and is scheduled to open in late 2017. Cleveland Clinic and Select Medical have a joint venture to bring rehabilitation care closer to home.

FUTURE GROWTH

Cleveland Clinic Rehabilitation Hospital – Beachwood



This 60-bed, 60,000-square-foot facility, developed in partnership with Select Medical, is scheduled to open in late 2017.

Taussig Cancer Center



The multidisciplinary outpatient cancer center will revolutionize treatment with advanced therapies, evidence-based protocols and patient-centered care. The seven-story, 377,000-square-foot building has 126 exam rooms, 98 infusion rooms and abundant natural light. The facility opens in March 2017.

FUTURE GROWTH

Weston Bed Tower – Expansion Phase II



To meet increasing patient volumes, Cleveland Clinic Florida is building a five-story tower with 74 beds, three operating rooms, and an emergency department with 40 treatment rooms and 24 observation bays. Opens July 2018.

Cleveland Clinic London



Cleveland Clinic is expanding globally with a location at 33 Grosvenor Place, London. This eight-story, 323,100-square-foot facility includes 205 beds and eight operating rooms. Scheduled to open in fall 2020, it will offer major medical specialties, CT, endoscopy suites, lab and pharmacy.

2016

Michael Kattan, PhD

SONES INNOVATION AWARD RECIPIENT

Michael Kattan, PhD, Chair of Quantitative Health Services in Cleveland Clinic's Lerner Research Institute, pioneered mathematical models (nomograms) that predict risk of disease recurrence or progression in prostate cancer and other conditions. He holds two patents for risk calculators, and he developed online calculators that address 34 different diseases. Dr. Kattan is a financial risk modeler and former stage IV cancer patient. His widely validated methodology has powerful clinical potential.

The award was established to recognize achievements that reflect the spirit of Dr. Sones and honor the Cleveland Clinic tradition of innovation for better patient care. It comes with a \$25,000 prize.



Every life deserves world class care.

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Please visit our website at clevelandclinic.org.