

2021 PHARMACY

FACTS & FIGURES

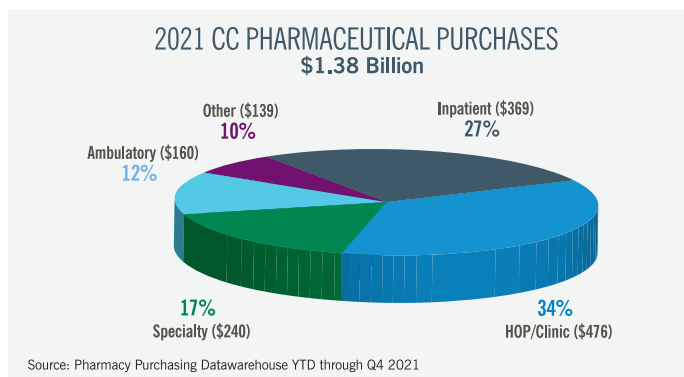
In 2021, we updated our vision and mission.

Vision: To be the best in pharmacy practice for our patients, caregivers and community

Mission: Providing a lifetime of exceptional care through patient-centered pharmacy practice, research and education

WHO WE ARE

21	Hospitals
6,496	Total Hospital Beds
24	Outpatient Pharmacies
690	Pharmacists (46% Board Certified)
679	Technicians
63	Residents
95	Interns
984	APPE/IPPE Rotations Completed
66	Peer-Reviewed Publications
13	Poster and Platform Presentations



REVENUE AND COST SAVINGS

Pharmacy Enterprise Savings

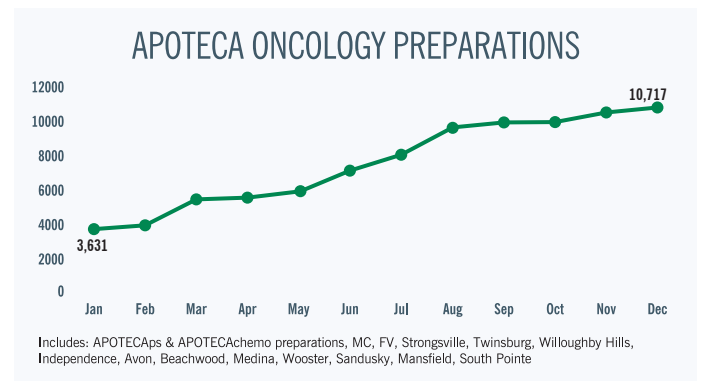
- Pharmacist interventions led to a total cost avoidance of **~\$1.5 million**

Employee Health Plan (EHP) Savings

- Achieved a net cost per member per month of **\$33.51 less** than other hospital employers in our pharmacy benefit manager's employer book of business
- Completed more than **12,800 clinical reviews** for prior authorization requests and 10,700 customer relationship management interactions
- Achieved **\$15 million in enterprise cost avoidance** through EHP's ongoing Mandatory Maintenance Program

AUTOMATION, INNOVATION AND TECHNOLOGY

- Increased medication availability within automated dispensing cabinets:
 - South Pointe: **96%**
 - Indian River: **91%**
 - Main Campus: **92%**
 - Akron: **78%**
- Implemented SlicerDicer, an Epic data analysis tool allowing caregivers to run their own reports, and pharmacists were recognized among the **highest utilizers** across the enterprise
- Epic Super-User Committee was established, **consisting of 38 pharmacists representing all Florida and Ohio sites**. The committee supported the use of new Epic functionalities, including:
 - 2 system upgrades
 - Pharmacist hand-off tool
 - Anesthesia & narcotic reconciliation
 - Charge on administration
- Main campus implemented the APOTECA syringe robot as **the fifth robot** in sterile products, filling and labeling more than **20,000 syringes monthly**
- APOTECAs gravimetric technology was **implemented at 11 new sites**, totaling 33 devices across the enterprise
- APOTECA oncology preparations **increased by 295%** from January to December



CONTINUOUS IMPROVEMENT INITIATIVES

- Medina's continuous improvement efforts led to **a savings** of nearly 200 hours and more than **\$140,000** through inventory and workflow upgrades
- Taussig Cancer Center pharmacy realized **cost savings** of more than **\$250,000** in eight months through targeted high-cost infusion management
- Abu Dhabi reviewed more than **1,300 medication safety events** leading to 85 system improvements and 40 safety briefs



AUTOMATION, INNOVATION AND TECHNOLOGY (CONT'D)

Board of Pharmacy Automated Dispensing System Waiver


- Demonstrated **over 99% accuracy** of doses filled from automated dispensing systems across five inpatient pharmacies at main campus and Akron General to **maximize the use of technology** as the final check of medications dispensed from carousels and static shelving
- Waiver allows **11 million doses annually** to be checked via dispensing software, with only 5% of doses requiring pharmacist quality assurance
- Allowed for **optimization of Pyxis replenishment schedules and repurposing of pharmacist time toward direct patient care**

COVID-19 TREATMENT AND PREVENTION

Awards

- Two pharmacy caregivers received the **Commendation Medal from the Governor of Ohio**
- Best practice **recognized by CDC** for vaccine storage and monitoring, and cold chain handling and logistics strategies
- Best practice **recognized by FEMA** for quality assurance processes

Vaccines

- Implemented freezer storage to house **nearly 100,000 doses** of frozen vaccine for up to six months at main campus
- Administered **787,284 vaccines** to patients and caregivers 
- Distributed more than **1 million doses** across Northeast Ohio
- Procured and stocked vaccines for more than **100 primary care clinics**
- Collaborated with Ohio Department of Health, utilizing the standard work developed from internal caregiver vaccination sites to provide vaccines to more than **255,000 patients** at the FEMA mass vaccination site at Cleveland State University
- Established **11 mass vaccination sites** in Ohio, **achieving less than 0.1% waste realized** from vaccine doses drawn

Treatment and Prevention


- Marymount was **the first hospital in Northeast Ohio** to administer monoclonal antibody infusions to COVID-19 patients and performed more than 1,300 infusions over the year
- Community pharmacies **dispensed 28,831 COVID-19 self-check kits**

PHARMACY AND PRACTICE EXPANSION

Clinical Practice

- Anticoagulation team recognized as Anticoagulation Forum **Center of Excellence**
- Akron General implemented an inpatient opioid stewardship pharmacist-driven program and **reduced discharge prescription morphine milligram equivalents by ~30%** 
- Medina **expanded consult agreements** to include pharmacist-driven services for anticoagulation, administration routes, laboratory monitoring, renal dosing and vancomycin dosing
- Avon implemented a pharmacist-driven *C. difficile* prophylaxis screening process, **strengthening antimicrobial stewardship** activities
- Primary thrombolytic for acute stroke response was **converted to tenecteplase** and standardized across the enterprise
- Main Campus Euclid Avenue Pharmacy team created a pediatric medication synchronization and delivery service to **serve high-risk children** with complex medical needs
- Ambulatory care pharmacists **provided patient care at 175,000 visits** and expanded services, such as gender care and inflammatory bowel disease

Professional Development and Advancement

- **First department across the system** to create and offer apprenticeships through the OneTen coalition (an initiative to hire, promote and advance 1 million Black Americans in the next 10 years), for which Cleveland Clinic is a founding member 
 - **8 locations** (Euclid, Fairview, Hillcrest, Lutheran, Medina, Marymount, main campus, South Pointe) **expanded** technician apprentice positions
- South Pointe **created** a bedside delivery technician role, and Akron **added** a sterile compounding technician position
- Abu Dhabi developed pharmaCEries, **providing webinars** for continuous education and professional development, and **Hillcrest developed a board certification course** for future BCPS pharmacists
- **Pharmacy Professional Development Connect Today** page launched, serving as an interactive location for clinical resources, educational opportunities and peer-to-peer pharmacy caregiver interactions

CLEVELAND CLINIC LONDON

- 45** Pharmacy Caregivers
- 100** New Pharmacy Policies Approved
- 85** Pyxis Machines
- 60** New Medication Supplier Contracts



Growth

- Pharmacy caregiver presence at new outpatient center helped serve more than **100 patients** on opening day
- Became the **first hospital in the United Kingdom** to implement unit-dose model system
- Commissioned a **unit-dose robot** to produce solid unit-dose medications that would otherwise be unavailable
- Implemented individual **barcode technology** to assist with BCMA and inventory management

CLEVELAND CLINIC FLORIDA

- Locations:** Indian River Tradition, Martin North, Martin South, Weston
- 5** Hospital Pharmacies
- 4** Outpatient Infusion Pharmacies
- 3** Retail Pharmacies
- 2** Prior Authorization Sites
- 1** Central Repackaging Pharmacy

Growth

- Achieved more than **\$1.6 million** in drug cost savings through formulary and operational integration
- Opened a new repackaging pharmacy at the Florida Research and Innovation Center
- Grew volume of outpatient prescriptions by **20%**
- Weston oncology infusion center increased chair space and is providing roughly **100 infusions daily**
- Indian River implemented a rapid diagnostic panel and antimicrobial treatment algorithm to **enhance antimicrobial stewardship** efforts
- Created **three new residency positions**

