

Henry Ford Health

Henry Ford Health Scholarly Commons

Quality Expo 2024

Quality Expo

3-12-2024

Project #57: Transforming Atrial Fibrillation Care in the ED: A Quality Improvement Initiative for Safe and Streamlined ED Transitions of Care

Arfaat Khan
Henry Ford Health

Satheesh Gunaga
Henry Ford Health

Christian P. Fisher
Henry Ford Health

Sue Piatak
Henry Ford Health

Ryan T. Shelters
Henry Ford Health

See next page for additional authors

Follow this and additional works at: <https://scholarlycommons.henryford.com/qualityexpo2024>

Recommended Citation

Khan, Arfaat; Gunaga, Satheesh; Fisher, Christian P.; Piatak, Sue; Shelters, Ryan T.; Stevens, Timothy; Hanlon, Kaitlyn; Babel, Jacob; Wood, Alyssa; El-khatib, Layan; Kumar, Brunda L.; Ayoub, Mohammad H. A.; Smythe, Dennis; Dalessandro, Bethany; Spencer, Ryan; and Plemmons, Elizabeth, "Project #57: Transforming Atrial Fibrillation Care in the ED: A Quality Improvement Initiative for Safe and Streamlined ED Transitions of Care" (2024). *Quality Expo 2024*. 55.

<https://scholarlycommons.henryford.com/qualityexpo2024/55>

This Book is brought to you for free and open access by the Quality Expo at Henry Ford Health Scholarly Commons. It has been accepted for inclusion in Quality Expo 2024 by an authorized administrator of Henry Ford Health Scholarly Commons.

Authors

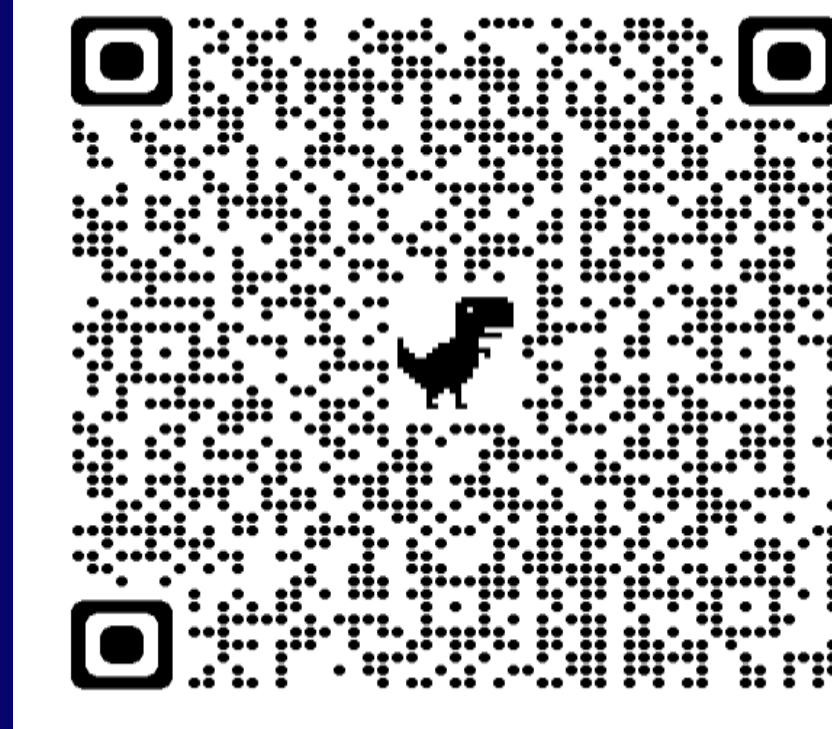
Arfaat Khan, Satheesh Gunaga, Christian P. Fisher, Sue Piatak, Ryan T. Shelters, Timothy Stevens, Kaitlyn Hanlon, Jacob Babel, Alyssa Wood, Layan El-khatib, Brunda L. Kumar, Mohammad H. A Ayoub, Dennis Smythe, Bethany Dalessandro, Ryan Spencer, and Elizabeth Plemmons



Transforming Atrial Fibrillation Care in the ED: A Quality Improvement Initiative for Safe and Streamlined ED Transitions of Care

Team Members: Arfaat Khan, Satheesh Gunaga, Christian Fisher, Sue Piatak, Ryan Shelters, Timothy Stevens, Kaitlyn Hanlon, Jacob Babel, Alyssa Wood, Layan El-khatib, Brunda Lakshmish Kumar, Mohammad Ayoub, Dennis Smythe, Bethany Dalessandro, Ryan Spencer, Elizabeth Plemmons

Henry Ford Health & Wyandotte Hospital & Brownstown Health Center - Department of Emergency Medicine & Division of Cardiology

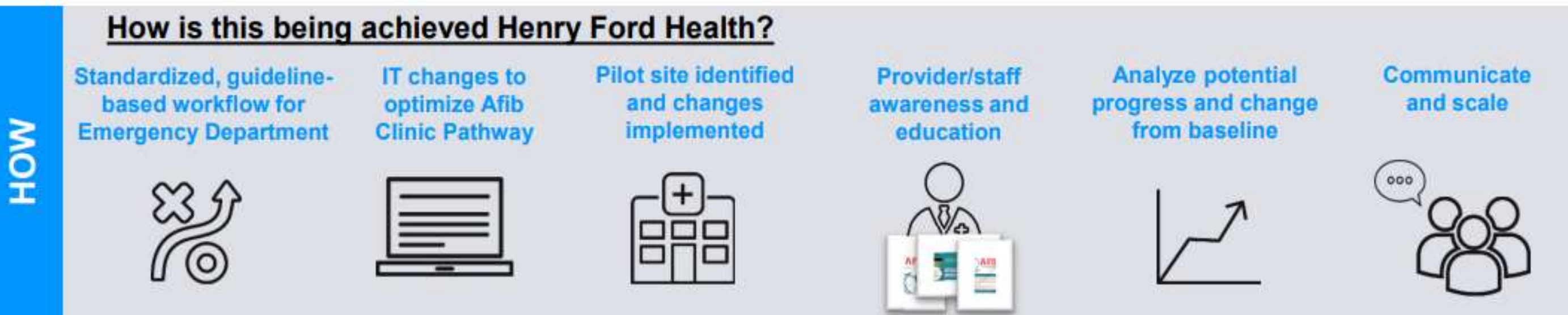


QUALITY IMPRVEMENT VISSION & AIMS

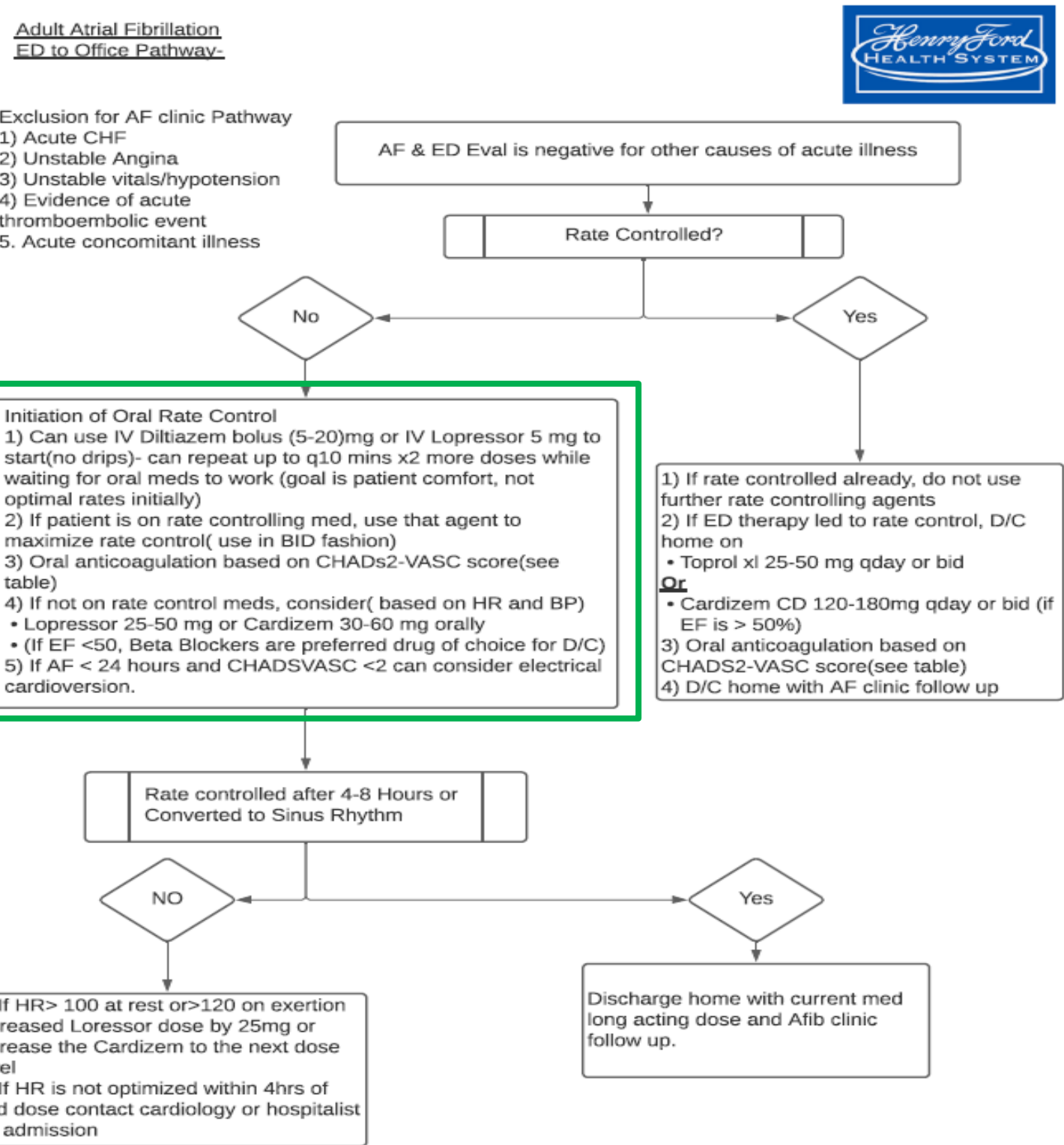
- ED Atrial Fibrillation (A-FIB) Treatment Protocol Implementation:** Implement a focused ED A-FIB treatment protocol to achieve effective rate control using a combination of IV and oral medications. This aims to optimize the management of A-FIB presentations in the emergency department.
- Improvement in Outpatient Transitions of Care:** Enhance the safety around outpatient transitions of care for A-FIB patients. This includes designing protocols for the safe discharge of patients with expedited follow-up in an outpatient electrophysiologists A-FIB clinic.
- Reduction in Hospital Admissions Related to ED A-FIB:** Anticipate a safe reduction in hospital admissions related to ED A-FIB presentations by implementing the focused treatment protocol. Reducing inpatient admissions will reduce resources utilization
- Expedited Outpatient Follow-Up:** Establish an expedited outpatient follow-up system with electrophysiologists in the A-FIB clinic. This objective aims to enhance continuity of care and promotes prompt and tailored strategies for A-FIB patients
- Transformation of ED Management Paradigm:** Transform the ED management paradigm for A-FIB presentations across Henry Ford Health. This involves promoting safe transitions of care and optimizing patient outcomes through the successful implementation of the A-FIB QI initiative.

WHAT	What are the goals?	What are the opportunities?
	<ul style="list-style-type: none">Streamlined care of Afib patients across the ED and Cardiovascular care settingsDecrease inpatient admissions of Afib patient from the EDImplement proper documentation of anticoagulation use and robust Afib care plan communication across care providersEarlier access to rhythm control for Afib patientsOptimize APP led Afib Clinics at each site with all low-risk patients referred	<ul style="list-style-type: none">Standardize process to triage Afib patients to the appropriate setting of careOptimize Transitions of Care ProcessesIdentification of risk factors for Afib patient populationScale appropriate processes for stroke risk stratification and anticoagulation treatment in accordance with guidelines
WHY	<p>Why is this important?</p> <ul style="list-style-type: none">Based on weighted estimates from the HCUP National Emergency Department Sample (NEDS) in 2016, 51% of patients with a primary diagnosis of Afib and 62% of patients with a secondary diagnosis of Afib from emergency department (ED) visits resulted in hospitalization.¹	<p>Data provided by Henry Ford Health</p> <ul style="list-style-type: none">In Jan-April 2021, between 55-100% of patients presenting to a HFH facility with a Primary Atrial Fibrillation Diagnosis resulted in an inpatient admission (50% at Detroit Main and >90% at the other four HFH hospitals)²Individuals with Afib are nearly 5 times more likely to have a stroke than individuals without Afib.³

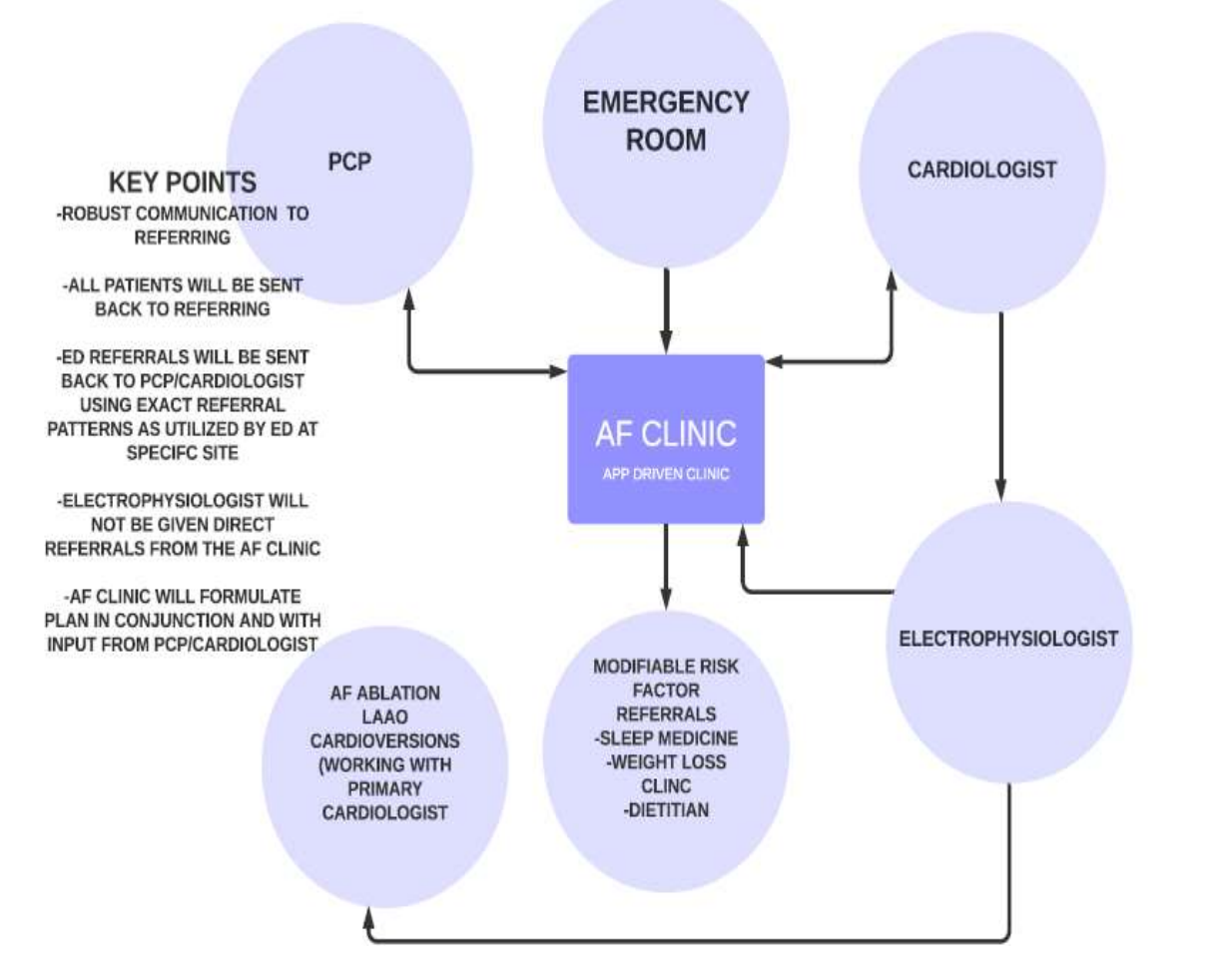
MULTI-DISCIPLINARY A-FIB QI INITIATIVE IMPLEMENTATION



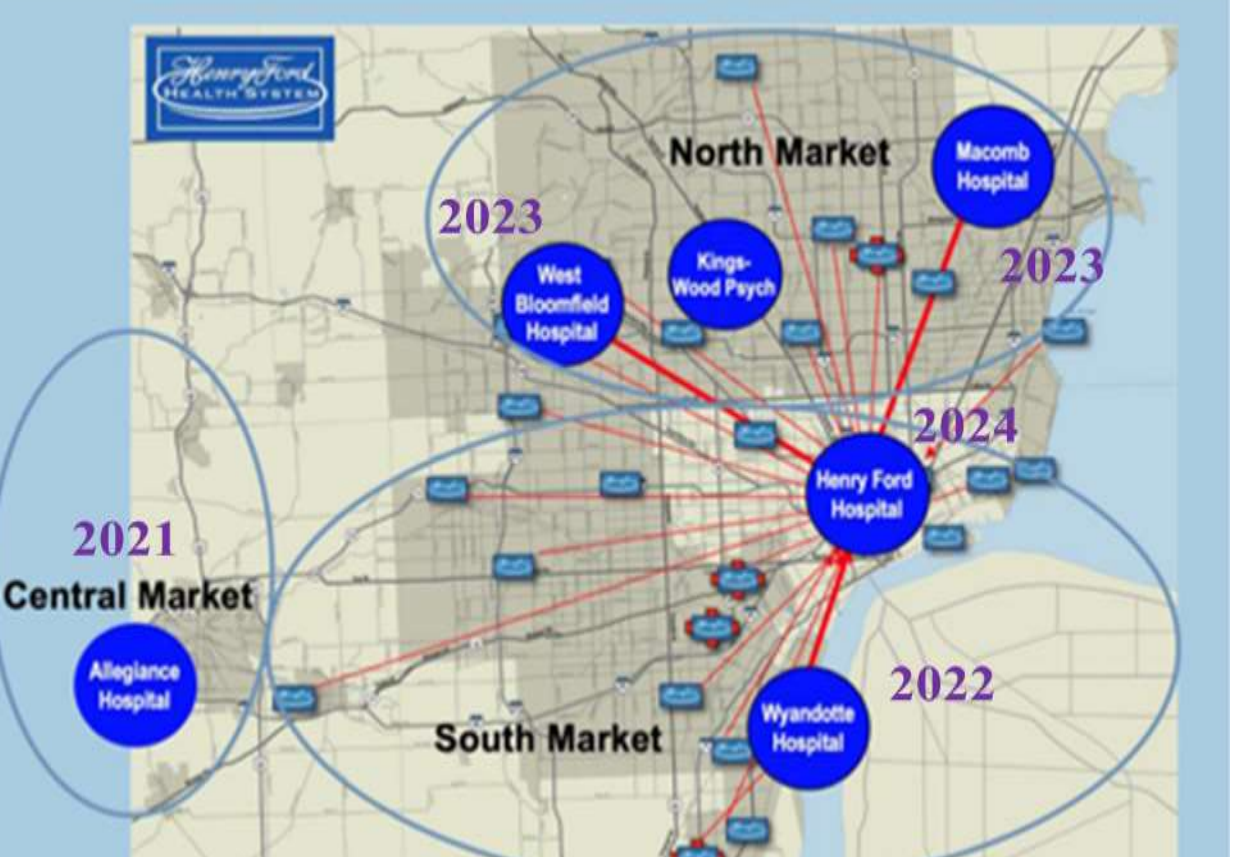
ED A-FIB MANAGEMENT PATHWAY



APP DRIVEN A-FIB CLINIC GOALS



A-FIB CLINIC LOCATIONS AND GO LIVE DATES



EPIC A-FIB AMBULATORY REFFERAL ORDER

Emergency Referrals

Ambulatory referral to Cardiology

1. Select Follow-up priority

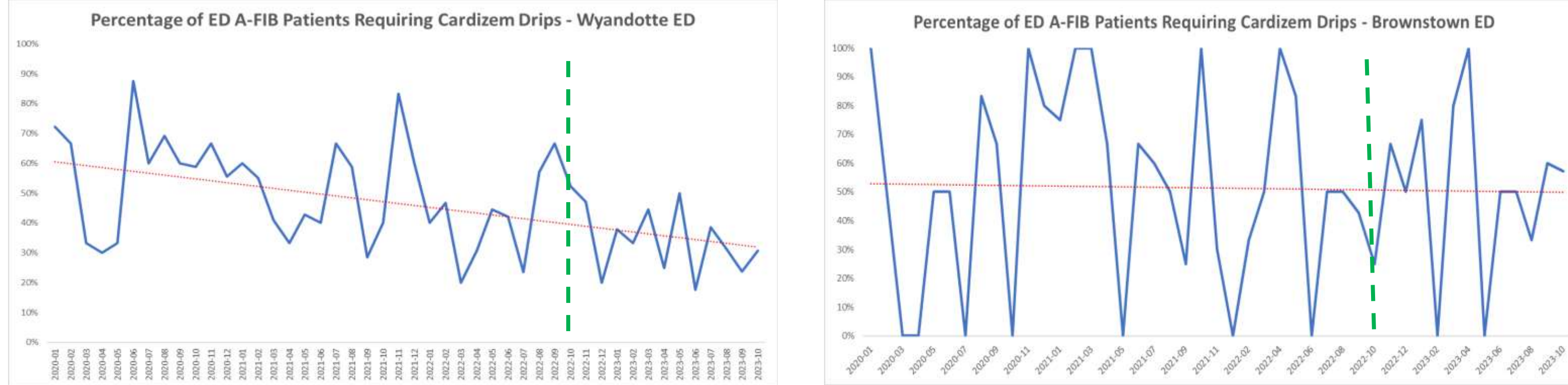
2. Select HF Allergiance

3. Select A-Fib Clinic

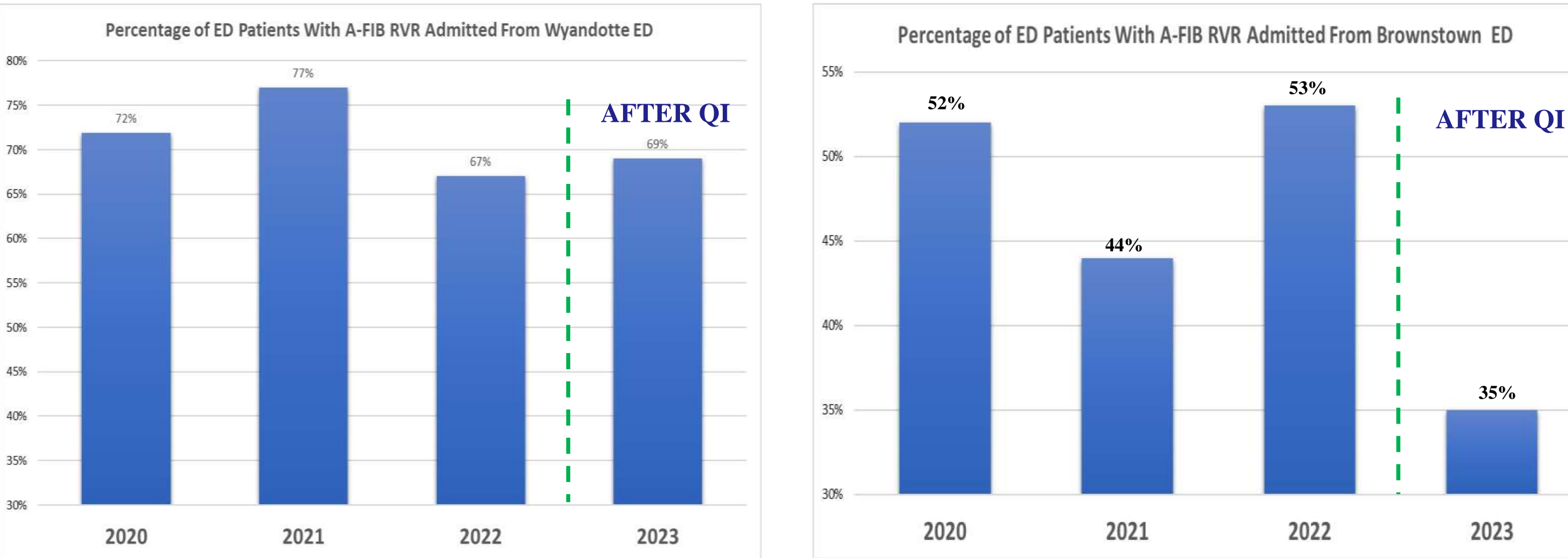
SUMMARY OF ED A-FIB ADMISSION RATES



SUMMARY OF ED CARDIZEM IV INFUSION UTILIZATION

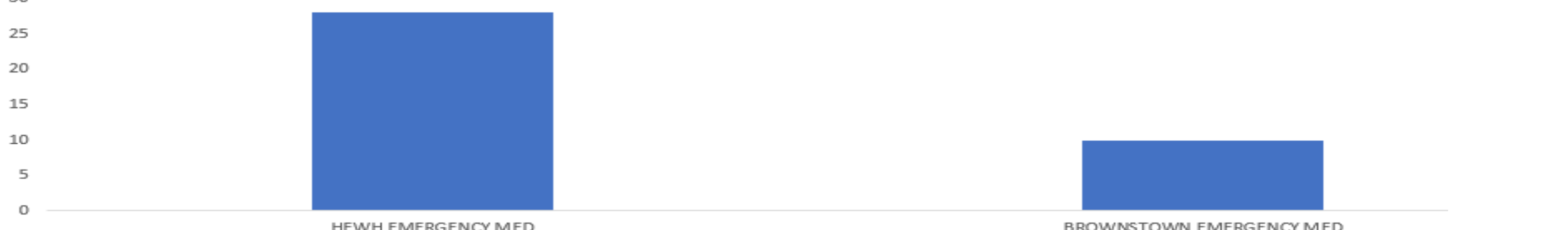


SUMMARY OF ED ADMISSION RATES FOR A-FIB WITH RAPID VENTRICULAR RATE



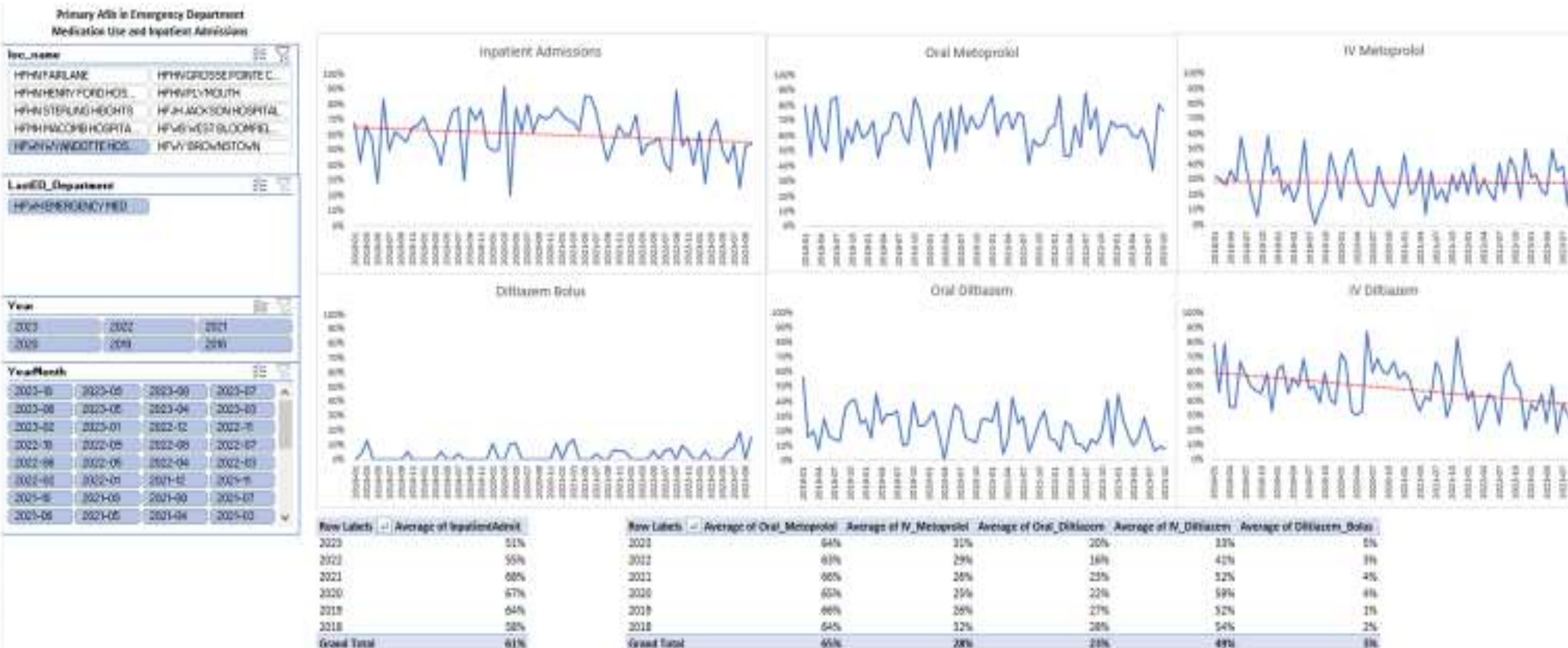
SUMMARY OF ED REFERRALS TO HFWH A-FIB CLINIC

38 TOTAL ED REFERRALS TO HFWH A-FIB CLINIC



CREATING THE HFH A-FIB DASHBOARD

Creation, Verification and Implementation of a HFH A-FIB Dashboard Allows Direct and Real Time Feedback to QI Leaders and HFH Site Clinical Teams



A3 & PDCA LESSONS LEARNED

PLAN

- ✓ Creation and Coordination of a Multi-Disciplinary and Multi-Specialty System Reorganization Team on A-FIB
- ✓ Dedicated Resources A-FIB Clinic, Data Analytics and Clinical Decision Support
- ✓ Developed Evidenced Based A-FIB ED Protocol
- ✓ Created Timeline of A-FIB Clinic Roll Outs

DO

- ✓ Opened and Staffed Wyandotte A-FIB Clinic
- ✓ Role Out and Education of A-FIB ED Clinical Pathways and Referral Process
- ✓ Continuity of Education On Site and Monthly ED Department Meetings
- ✓ Creation of A-FIB Dashboard and Data Feedback Mechanisms

ACT

- ✓ Analyze Dashboard Data to Determine Future Opportunities for Improvement
- ✓ Opportunity to Standardize ED A-FIB Protocol and Clinic Referral Across Henry Ford Health
- ✓ Continuous A-FIB Monthly Meetings and Asynchronous Offline Work

CHECK

- ✓ Utilize A-FIB Dashboard as an Auditing Tool to Verify Effectiveness of Our QI Process and Implementations
- ✓ Providing Updated Education and Feedback to Providers and Nursing
- ✓ Clinical Decision Support Assistance to Fine Tune EPIC Ambulatory Referral Process

BIG TAKE AWAYS & NEXT STEPS

- This A-FIB SRT and QI Effort Has Begun to Change the Culture of ED A-FIB Management and Disposition Patterns.
- We Found an Approximately 11% Overall Reduction in ALL ED A-FIB Admission Rates in Two HFH Pilot EDs.
- We Found a Valuable Trend Towards Reducing the Initiation of Cardizem Drips for A-FIB Patients in the ED, Minimizing the Intensity of ED and Inpatient Nursing and Pharmacy Medication Administration Demands.
- Successfully Created a Safe and Expedited Out-Patient Follow-Up with Electrophysiology through this ED Referral Process.
- Continued Roll Out of A-FIB ED Protocol and Referral Process Throughout Other HFH EDs and Hospitals.
- Initiated a Collaboration with Pfizer's Quality Improvement Team to Develop Further Data Analytic Opportunities as well as Clinical Decision Support Tools to Support our Current and Future QI Efforts.
- Formal IRB Submission and Development of a Retrospective A-FIB Cohort Research Study for National Conference and Manuscript Submission in 2024.