

BACKGROUND

The General Internal Medicine (GIM) division at the Kaye Edmonton Clinic (KEC) accepts referrals for specific GIM physicians, Hypertension Clinic and a general GIM pool. Patients are seen in physician's personal GIM, R4/R5, and Hypertension clinics, as well as the Urgent Access clinic. GIM physicians also utilize ConnectMD, which is a telephone service available to community physicians to discuss patient cases with a specialist within 24 hours.

In March 2022 there were 130 patients with referrals accepted to GIM but waiting to be scheduled for an initial appointment. Anecdotally, this was higher than previous years and many patients were waiting more than 3 months to be seen.

Possible causes for the longer waitlist include decreased number of clinics as physicians were scheduled for more inpatient weeks during the pandemic, increased referral volume due to delayed presentation to care during the pandemic, increased ease of referral with Connect Care and fewer patients seen in the R4 clinic due to more follow-up appointments booked.

AIM

By December 31, 2022 reduce the number of referred patients Waiting to be Scheduled by 20%

UNDERSTANDING THE CURRENT PROCESS

1. **Chart review** of the 130 patients awaiting scheduling with 44 variables reviewed to identify areas for intervention (completed in April 2022)
2. **1:1 Interviews** with relevant stakeholders: Medical Outpatient Unit Clerk, GIM Program Director and ConnectMD Manager
3. **Review of R4 Clinic** capacity in 2021-2022 academic year
4. **Review of ConnectMD** call volume and process

Summary of Baseline Findings

- Many referrals were for Hypertension (35% of referrals)
- Triage variability in the "Schedule By" date selected for each triaging definition, resulting in essentially no difference between Routine and Semi-Urgent triage categories.
- 33% of patients did not meet their schedule by date, with average of 98 days (8-156 days) from referral to initial appointment.
- Few new patients seen in R4 clinic from January – June 2022
- ConnectMD had an average of 13 calls per month, possibly an underutilized service

INTERVENTIONS

1. Standardized "Triage Priority" definitions when selecting Schedule By date Urgent < 2 weeks, Semi-Urgent < 6 weeks, Routine < 3 months
2. Increase capacity in R4 clinic by booking less follow-up appointments of current patients
3. Increased community awareness of ConnectMD through standardized ConnectMD phrase on letters/documentation leaving KEC to primary care physicians
4. Encouraged triaging GIM physician to contact referring providers through ConnectMD to further clarify referral for appropriate triage and/or answer clinical question via telephone to provide timely advice, if appropriate
5. Established a non-physician specific Hypertension Rotation with capacity for 12 new Hypertension referral per week, with occasional resident in clinic
6. Physician champions identified who raised awareness among GIM faculty and residents about waitlist and triaging process through monthly updates
7. Opportunity for a KEC GIM physician to see ~40 Hypertension referrals from waitlist in community clinic for short-term shortening of waitlist (*one-time use intervention*)

QUALITY IMPROVEMENT MEASURES

Outcome	Number of patients on "Ready to Schedule" list in December 2022
Process	<ul style="list-style-type: none"> • Time from referral to initial appointment • Number of patients seen by "Schedule By" date • Proportion of patients triaged per standardized triage definitions • Number of new patients seen in R4 Clinic • Number of calls made to ConnectMD • Number of patients seen per month in the Hypertension rotation • Portion of new referrals seen in GIM community clinic
Balancing	<ul style="list-style-type: none"> • Significant increase in time spent on phone with ConnectMD • Portion of ConnectMD calls resulting in an avoided clinic visit due to GIM specialist answering the clinical concerns/questions over phone (note: for this test of change cycle, we could not track this measure)

RESULTS - OUTCOME MEASURE

Aim of reducing the number of referred patients **ACHIEVED!**
Number of referred patients reduced by 37%

Number of Patients Awaiting Scheduling

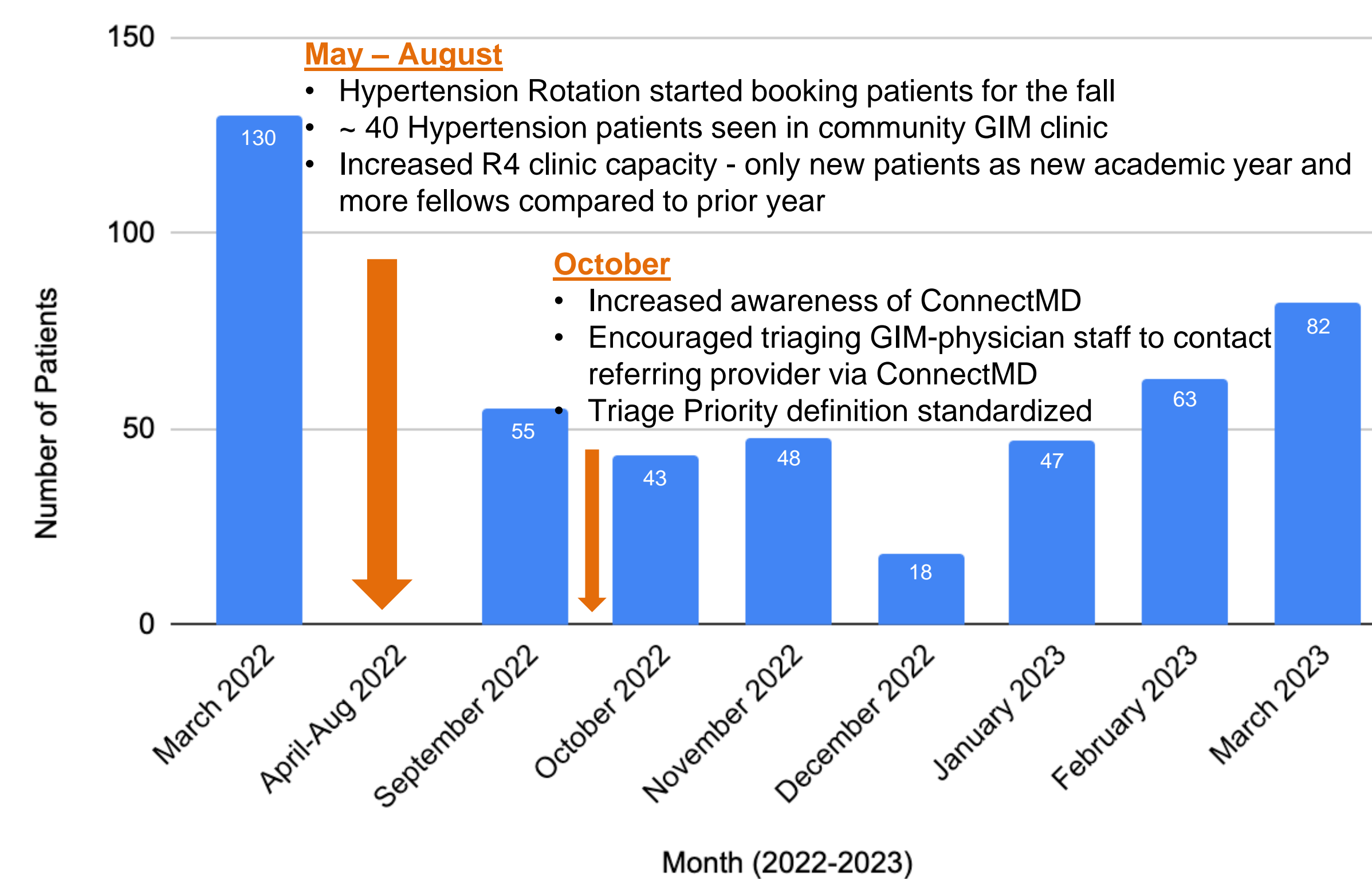


Figure 2: Timeline of interventions with total number of patients awaiting scheduling.

RESULTS – PROCESS MEASURES

Process Measure	Pre – Intervention	Post – Intervention
Hypertension Referrals (%)	35%	25%
Triaged as (%)		
Routine	Routine: 50%	Routine: 85%
Semi-urgent	Semi-urgent: 43%	Semi-urgent: 7%
Referrals Triaged per New Definition	---	68%
Time until Initial Appointment (days)	Range: 6-210 days Average: 98 days	Range: 11-120 days Average: 58 days
Schedule By Date met (%)	66%	76%

Figure 3: Comparison of pre- and post-intervention chart review. Post-intervention chart review completed in January 2023, with a review of 41 patients accepted but awaiting scheduling.

Number of new patients seen in R4 Clinic per month

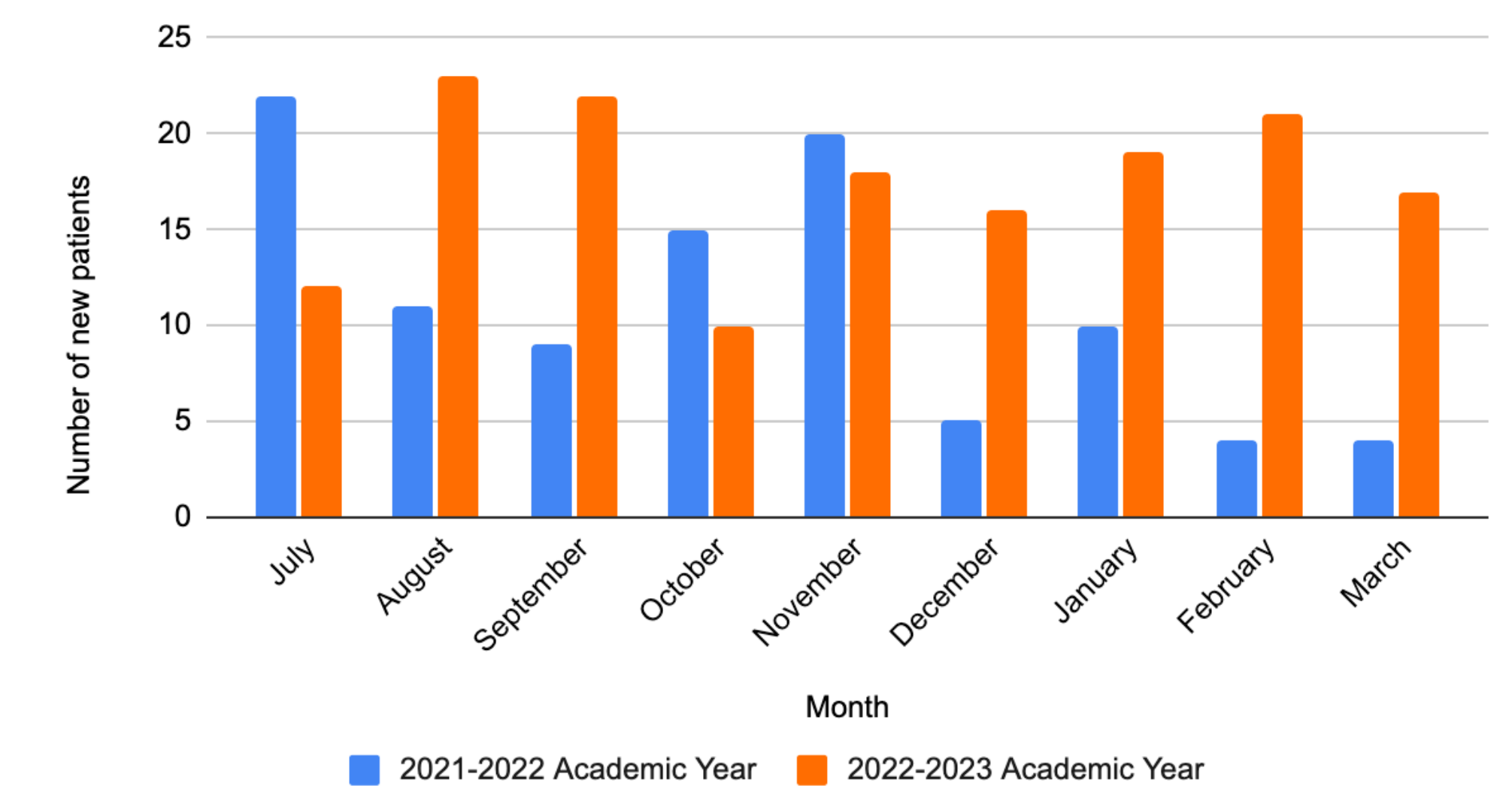


Figure 4: Comparison of number of new patients seen in the R4 Clinic between 2021/2022 and 2022/2023 academic year. There were 58 more patients seen in R4 Clinic post-intervention from July until March 2022/2023 compared to prior academic year.

Monthly Number of GIM ConnectMD Calls

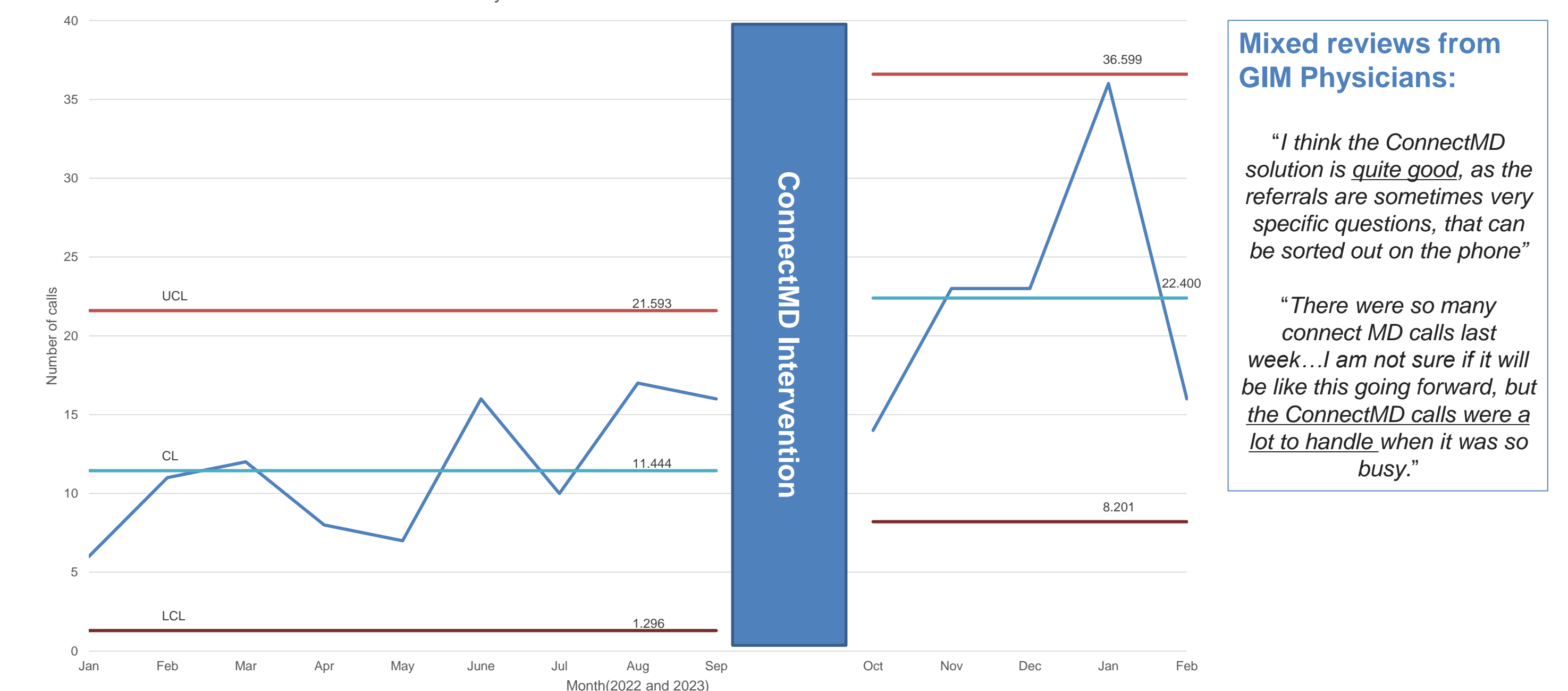


Figure 5: Number of ConnectMD calls placed per month. Overall call volume has been trending upwards since August 2022.

DISCUSSION

1. Reduced heterogeneity in applying the Triaging Definitions, specifically Semi-Urgent vs. Routine.
2. Upward trend in ConnectMD utilization with increased call volumes.
3. Increased awareness of triaging and scheduling process due to physician champions.
4. A significant portion of patients referred for Hypertension with ongoing capacity in the new Hypertension Rotation
5. Increased number of patients meeting their scheduled by date, with reduction in average days until appointment.

Limitations and confounders include an increased number of R4 fellows in the new academic year (8 vs 5), referrals to specific physicians are not necessarily being triaged according to standardized definition, day to day variability in Patients Awaiting Scheduling and overall changing dynamic due to the pandemic.

NEXT STEPS

We will continue to monitor impact of intervention on number of ConnectMD calls to evaluate trend and assess number of patients seen in R4 Clinic at the end of Academic year (July - June)

Other possibilities for improvement include:

- **Develop bidirectional referral process between GIM Clinics** (GIM Clinics at KEC and in community, or KEC Thrombosis) as referral numbers vary
- **Assess No-Show rate** and areas of improvement to reduce No-Show rate, to ensure all appointment slots are filled
- Gather feedback from **Referral Providers about use of ConnectMD** rather than a formal GIM Consult at KEC.