CARE TRANSFORMATION COLLABORATIVE RHODE ISLAND

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ADVANCING INTEGRATED HEALTHCARE

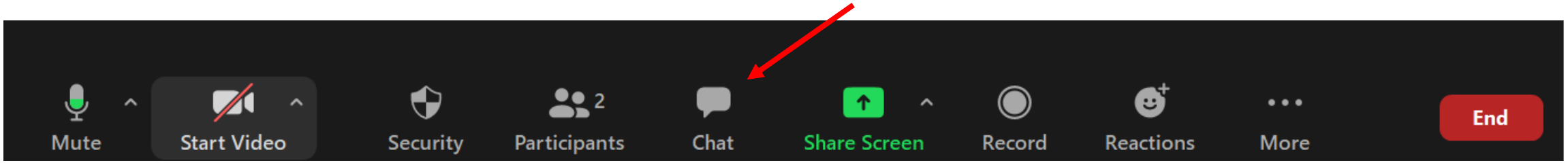
Pharmacy Quality Improvement Initiative Final Learning Collaborative

Care Transformation Collaborative of Rhode Island

May 26, 2022

Welcome!

- Please Chat in:
- - Your Name and Organization



- *Please mute yourself when not speaking*
- *Please use the 'Raise Hand' feature*

Thank You to Our Funders!

- UnitedHealthcare

- Rhode Island Department of Health

Agenda – Final Learning Collaborative

- Welcome & Introductions *(5 mins)*
- Hypertension Data & Case Presentation - Rob McConeghy, RIQI *(15 mins)*
- Review of Story Boards*(60 mins) (5 mins per team + 3 mins Q&A per team)*
    1. *Anchor Medical*
    2. *Coastal Medical*
    3. *Medical Associates of RI*
    4. *Providence Community Health Center*
    5. *RI Primary Care Physicians Corporation/Integra*
    6. *Thundermist*
    7. *LPG Women's Medicine Collaborative*
- Wellness Survey Results *(5 mins)*
- Next Steps *(5 mins)*

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Socio-demographics of RI Hypertension Outcomes

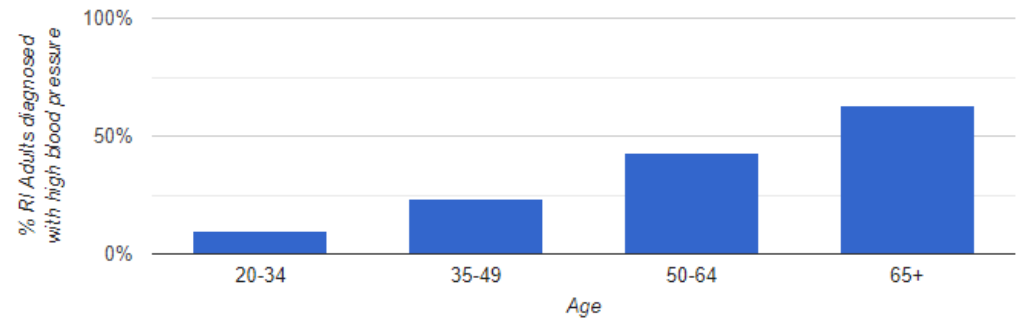
5/26/2022

Socio-demographics of Hypertension

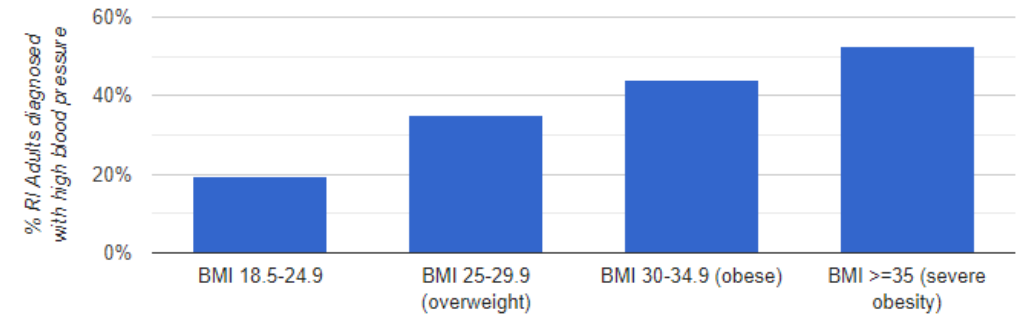
- In 2017, ~1/3 of RI adults had hypertension (RIDOH)
  - Rates were higher in those with high age, high BMI, and lower income status.
- In RIQI's **CurrentCare** (~1/2 of RI), we find ~23% had hypertension in 2019
- Questions
  - **Age, Gender, Race, Ethnicity, Zip Code, Smoking Status, Alcohol Use** – Were hypertension outcomes different in some sociodemographic groups?
  - **Reducing Preventable Hospitalizations** – Were there Hypertensive patients in the ED without anti-hypertensive medications in the prior 90 days?

2017 RIDOH Analysis Hypertension

By Age



By Body Mass Index (BMI) Category



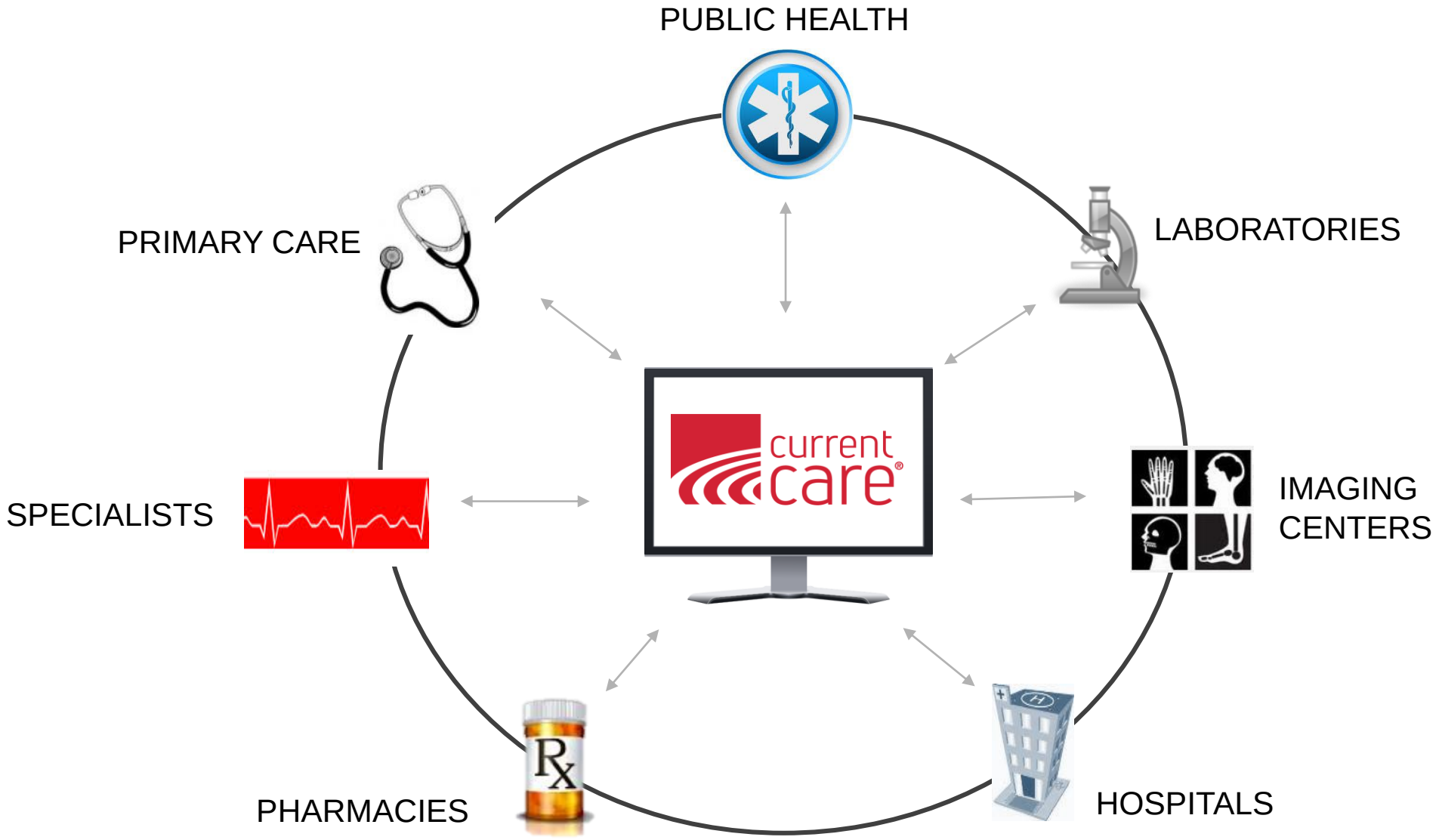
By Federal Poverty Level (FPL)*

Income as percent of Federal Poverty Level (FPL)*	Percent of adults with known hypertension
>=400%	27.7%
200-399%	35.7%
Below 200%	36.9%

Source: https://health.ri.gov/data/highbloodpressure/

CURRENTCARE

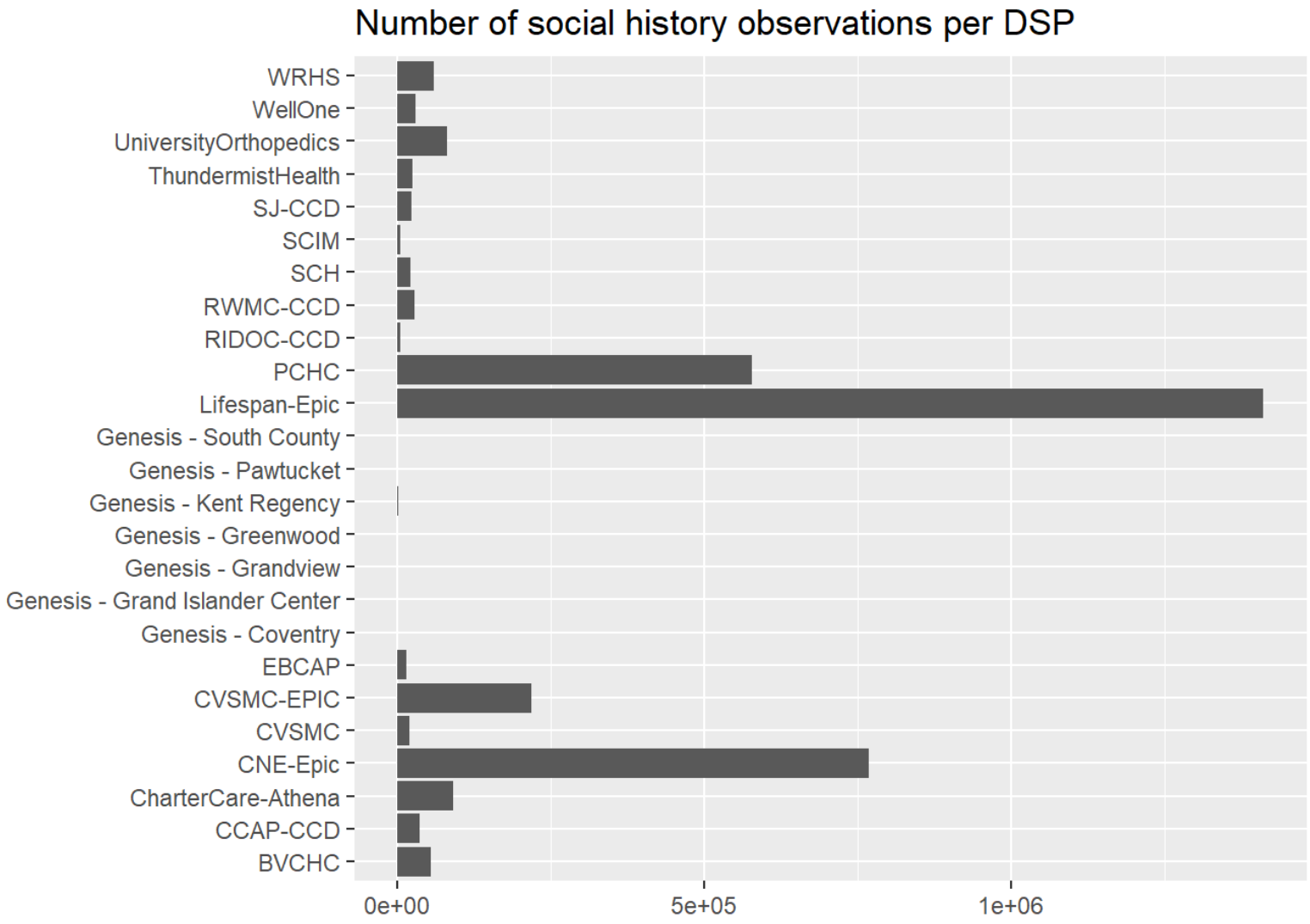
HOW IT WORKS



Research Cohort

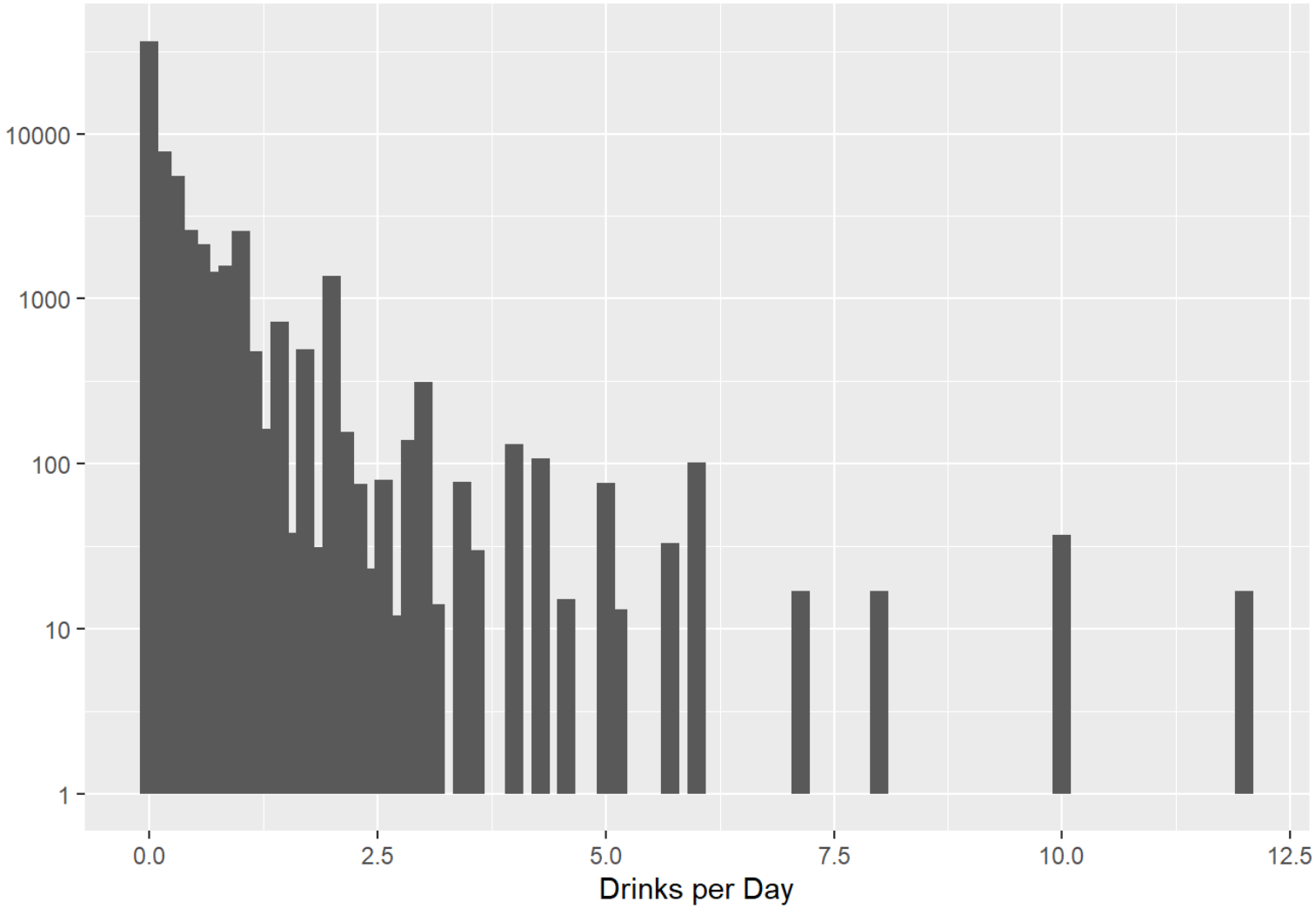
- Adult RIQI CurrentCare Enrollees with Hypertension before 1-1-2019 (**N= 139,656**)
- Diagnosis Sources:
    1. Hospital Admission, Discharge, Transfer (ADT) messages – with CCS 98 or 99 (**n= 125,165**)
    2. Problem List from Continuity of Care Documents (CCDs) – with CCS 98 or 99 (**n= 17,006**)
    3. Blood Pressure: **Systolic** >140 & **Diastolic** >90 (Stage 2, CDC definition) (**n= 22,208**)

Social History Data is Tricky: Smoking and Alcohol

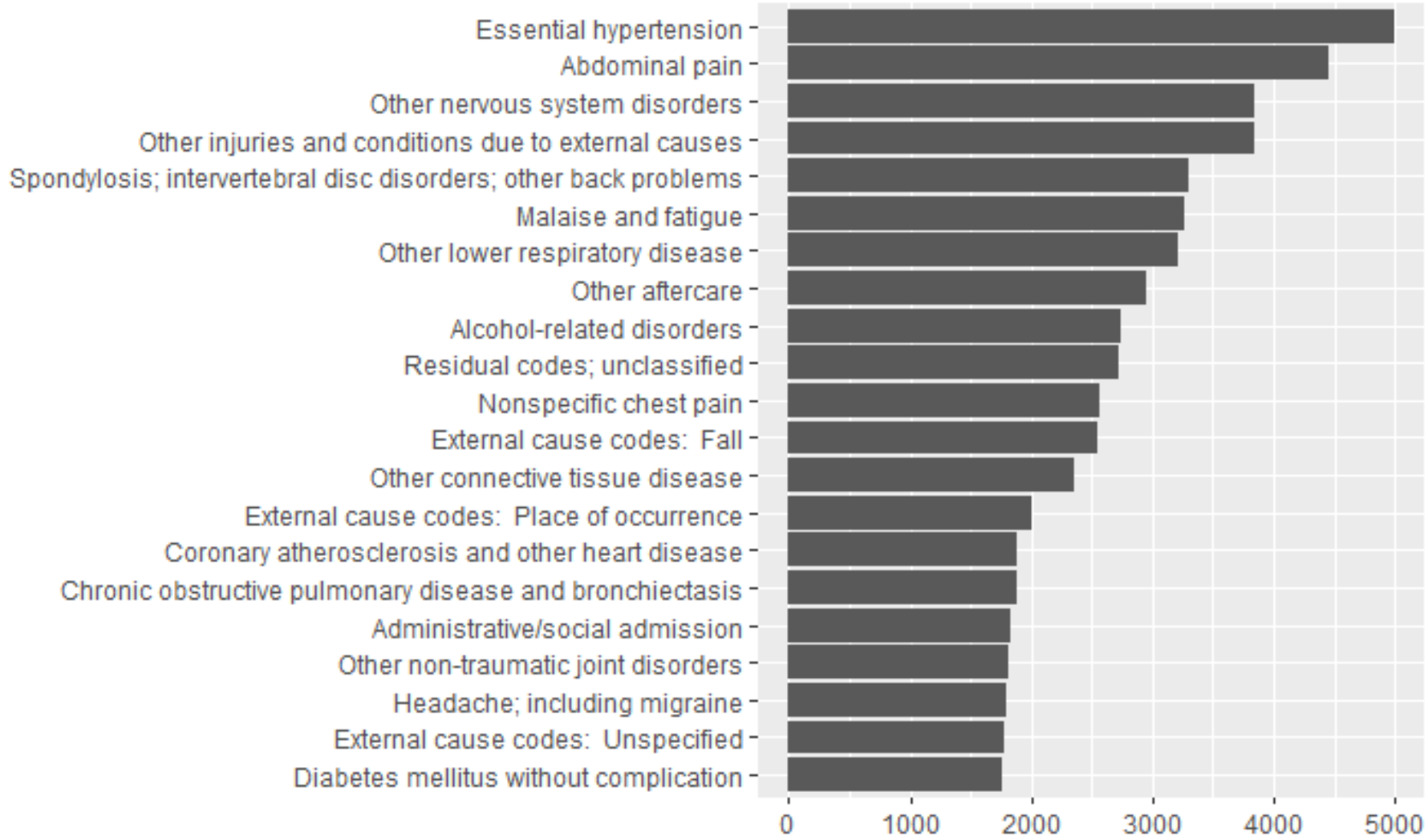


Log Scale: Number of Observations (1e06 = 1million)

Social History
Alcohol Use



Common ED Diagnoses of Hypertensive Patients



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Socio-demographics of 2019 HTN Outcomes

Patient Characteristic	Cohort Mean N=140k	SD	Any Inpat Visit Mean n=22k	SD	3 or More Inpat Visits	SD	Any ED Visit Mean n=39k	SD	3 or More ED Visits Mean	SD	Had Anti-Hypertensive 90d Prior to ED Visit n=4k	SD
Age	65.95	15.25	68.86	14.98	70.43	14.48	64.74	15.97	64.97	16.86	66.35	14.75
Female	0.54	0.5	0.56	0.5	0.53	0.5	0.57	0.49	0.58	0.49	0.59	0.49
White	0.75	0.43	0.75	0.43	0.74	0.44	0.71	0.45	0.69	0.46	0.7	0.46
Black	0.07	0.25	0.06	0.24	0.06	0.23	0.08	0.27	0.08	0.27	0.09	0.29
Asian	0.01	0.1	0.01	0.08	0.01	0.07	0.01	0.08	0	0.07	0	0.07
Other/ Unknown Race	0.18	0.38	0.18	0.39	0.2	0.4	0.2	0.4	0.23	0.42	0.21	0.4
Hispanic Ethnicity	0.11	0.31	0.09	0.29	0.07	0.26	0.13	0.34	0.12	0.33	0.14	0.34
Tobacco Use	0.52	0.5	0.64	0.48	0.62	0.49	0.62	0.49	0.63	0.48	0.67	0.47
Alcohol Use	0.29	0.45	0.32	0.47	0.28	0.45	0.32	0.47	0.31	0.46	0.31	0.46
hyptnsv_90d_prior_ED	0.03	0.17	0.1	0.29	0.14	0.35	0.11	0.31	0.16	0.37	1	0

Conclusions

- ~1/4 of CurrentCare Enrollees had hypertension in 2019
- ~22,000 HTN patients (~15%) had at least 1 Inpatient Visit
- ~39,000 HTN patients (~27%) had at least 1 ED Visit
- Inpatient stays were older; ED visits were younger
- Anti-hypertensives are filled more often by patients who also have more hospital outcomes
- Still, only a fraction of ED visits had anti-hypertensives filled in the last 90 days

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THANK YOU

HTTPS://WWW.RIQI.ORG

Rob McConeghy

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Medical Associates of RI

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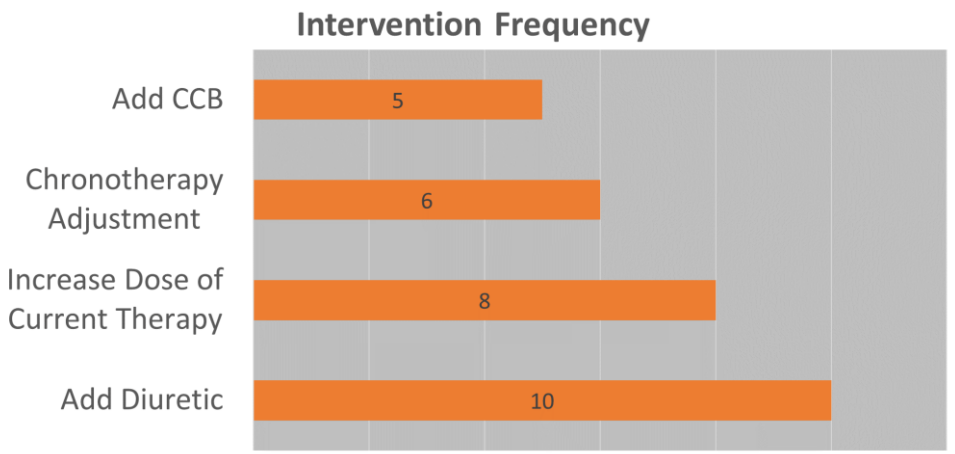
Outcomes/Results/Patient Surveys

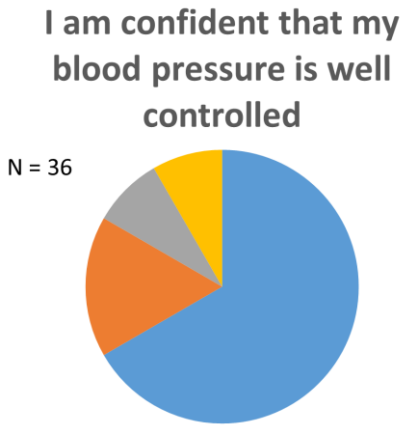
70 High Risk Referrals → 9 (13%) Declined ABPM

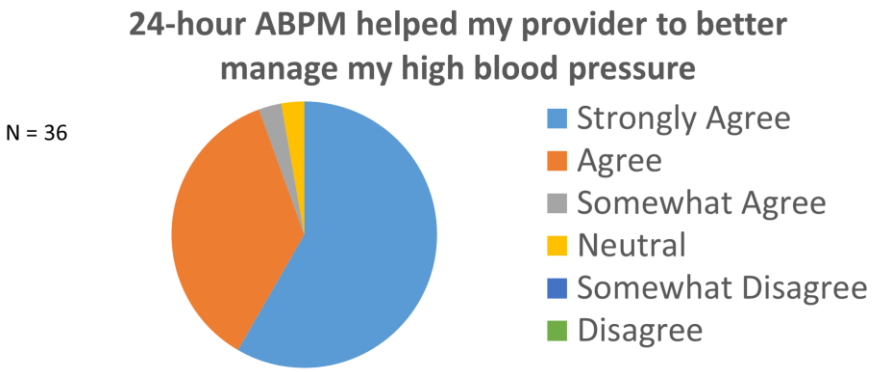
61 Completed Initial ABPM → 15/61 (25%) Patients At Goal

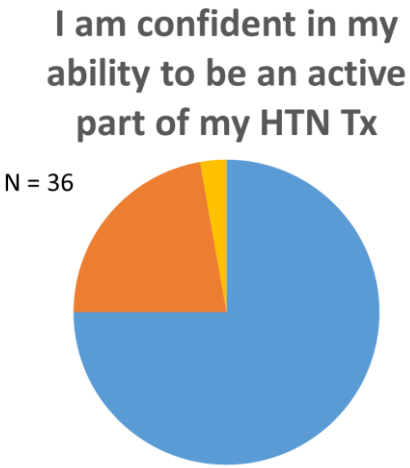
46 Gaps After Initial Study → 4/46 (8%) Lost to Follow-Up

27/46 (58%) Gaps Closed by End of April → 16/46 (34%) Gaps Outstanding









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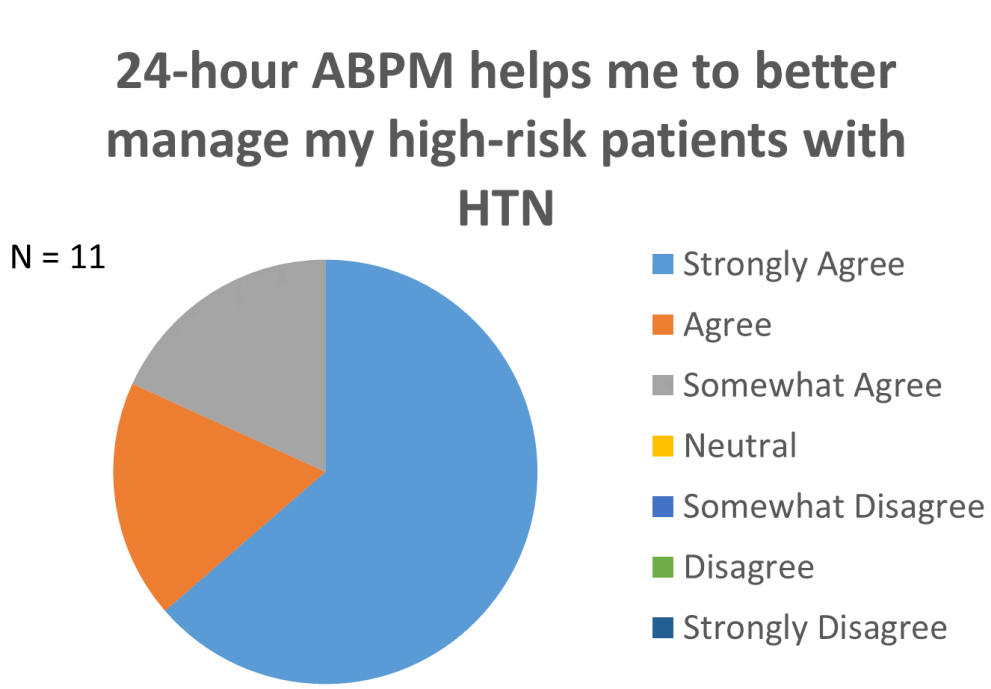
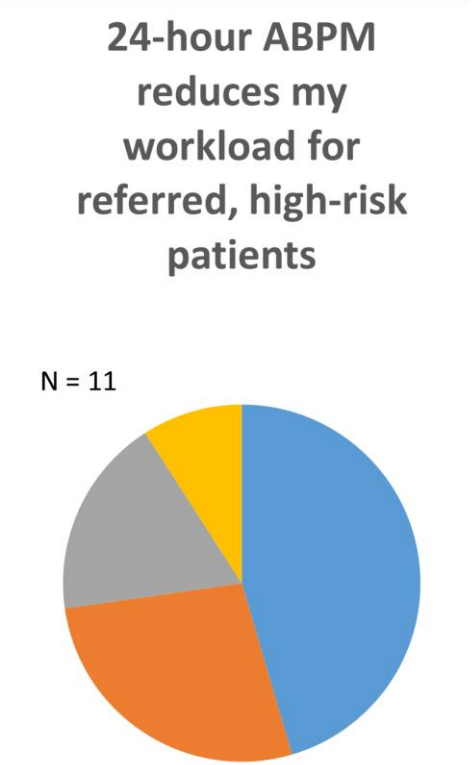
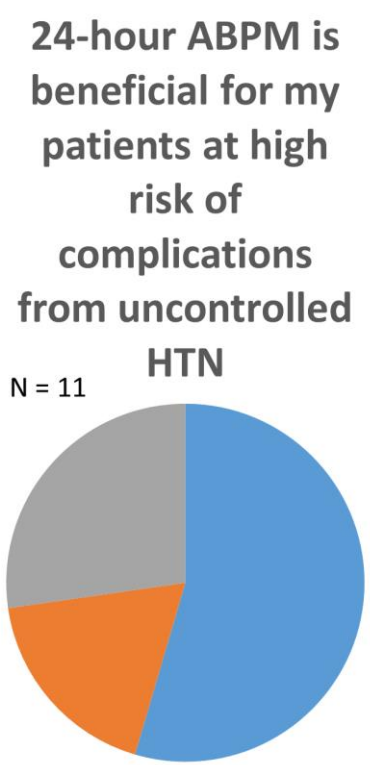
Lessons Learned

Sustainability, Next Steps







Coastal Medical – East Greenwich

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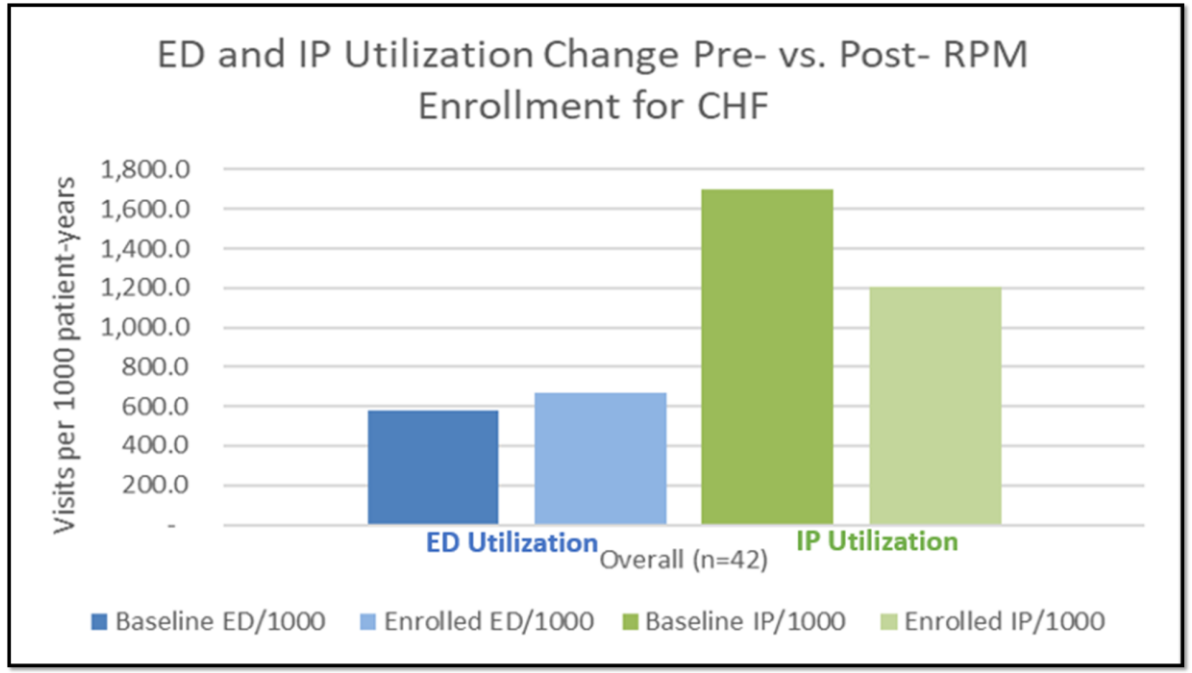
Outcomes/Results/Patient Surveys



Cost Avoidance in the Heart Failure Program

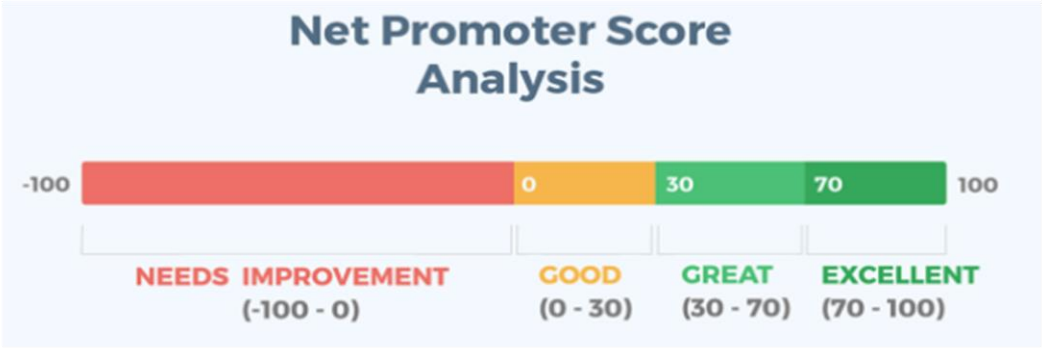
- 160 interventions with a total estimated cost avoidance of $2,082,096 in 2021

Though full utilization data is not yet available, we included an early analysis of utilization related to patients leveraging remote patient monitoring below.

Patient Satisfaction

Net Promoter Score for RPM HF program:

81



- *The care team is very professional and when I need them, they respond immediately.* ***Thank you for taking care of my health.***
- *Great team, very helpful and supportive.* ***I feel SO safe with them****.*
- *Being involved with this care has given me* ***more confidence in the Coastal team.***
- *It is easy to use and helps me to* ***stay on top of my heart health.***
- ***My mom, sister and I feel very well taken care of****.*
  Thank you for what you do for mom

Coastal Medical – East Greenwich

Lessons Learned

Sustainability, Next Steps

- **Medication Optimization**
  - Proactive clinical pharmacist to review for medication optimization
  - Active outreach and chart flags for providers
  - Track outcomes to determine success
- **Patient Engagement**
  - Improve access for patients with technology barriers
  - Improve after hours access
  - Expand digital education and engagement materials
- **Provider Engagement**
  - 2022 ACC/AHA guideline update for Coastal providers
  - Increase referrals from PCP for new diagnoses
  - Collaboration with external cardiologists

Thundermist Health Center of West Warwick

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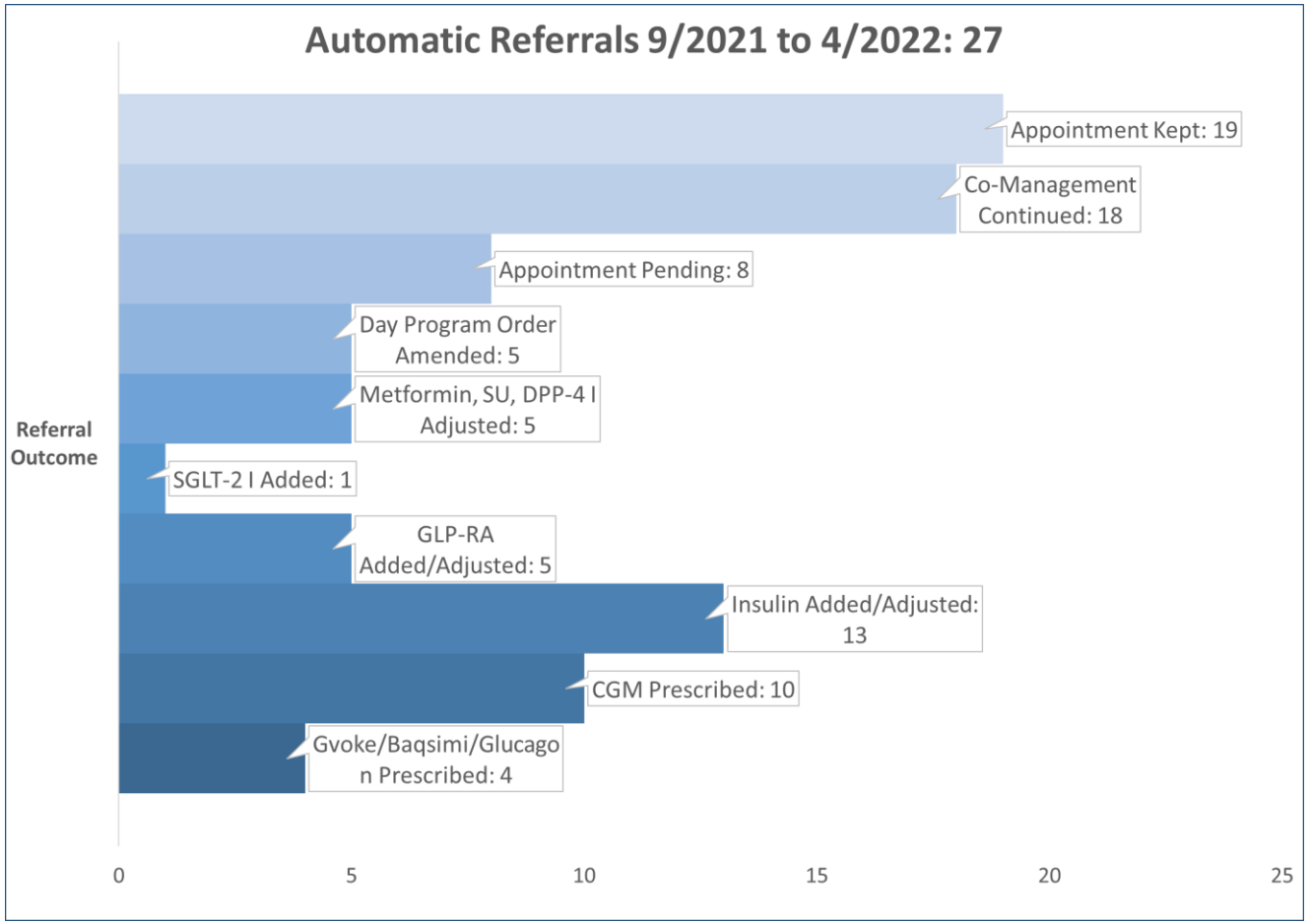
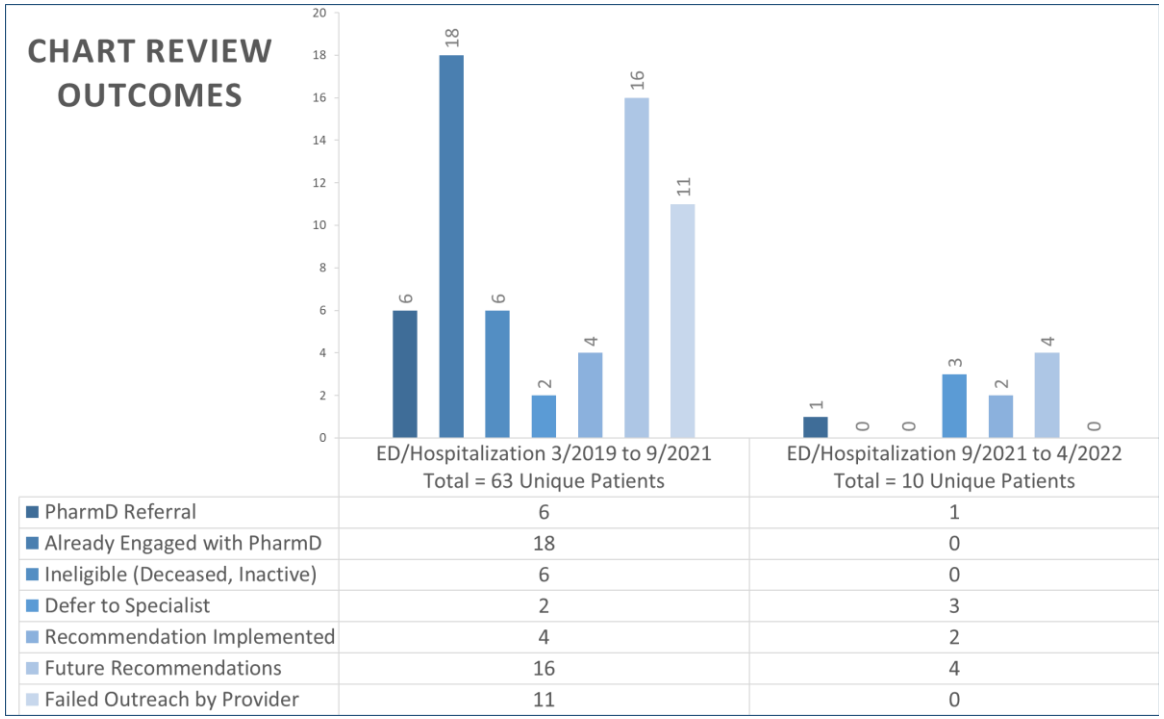
Outcomes/Results





	ED/Hospitalization 3/2019 to 9/2021 Total = 63 Unique Patients	ED/Hospitalization 9/2021 to 4/2022 Total = 10 Unique Patients
PharmD Referral	6	1
Already Engaged with PharmD	18	0
Ineligible (Deceased, Inactive)	6	0
Defer to Specialist	2	3
Recommendation Implemented	4	2
Future Recommendations	16	4
Failed Outreach by Provider	11	0

- 3/2019 to 9/2021: 102 ED visits/hospitalizations (63 unique patients)
- 9/2021 to 4/2022: 54 ED visits/hospitalizations (37 unique patients)
- 4/30/2021: 69% (699/1013) of patients had an A1c < 9%
- **As of 4/30/2022, 75% (840/1,119) of patients have an A1c < 9%**

Lessons Learned

Sustainability, Next Steps

1. Implement automatic PharmD referrals after ED visit/hospitalization for diabetes into workflow
    - Re-educate MAs/RNs/NCMs of workflow
2. NCMs and PharmD to continue updating Problem Lists to reflect diabetes diagnosis from hospitalization
    - Re-educate NCMs of workflow
3. Providers to proactively amend group home policies for hyper/hypoglycemia to avoid initial ED utilization
    - Re-educate providers to improve comfort level
4. Providers to prescribe hypoglycemia treatment and continuous glucose monitors when appropriate
    - Re-educate providers to improve comfort level
5. Considering a weekly report for patients with uncontrolled diabetes with an upcoming PCP visit for PharmD to complete chart reviews and recommendations for visit/future reference
6. Review resource opportunities with the Community Outreach Network and HEZ

Anchor Medical Associates

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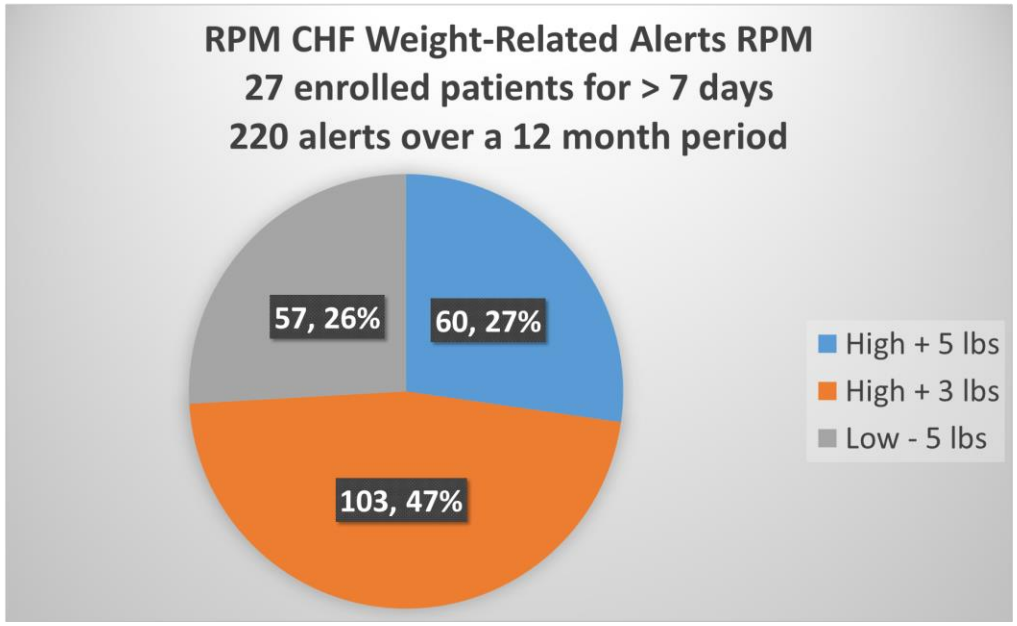
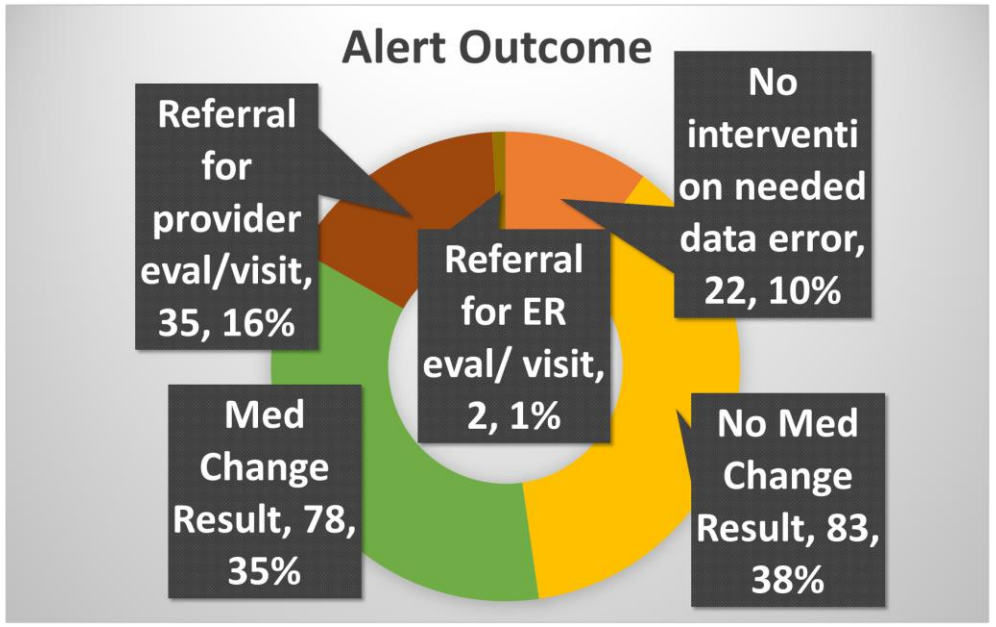
Outcomes/Results





	Total HF/High-Risk Panel			RPM Enrolled Panel	
	ER	Admits		ER	Admits
2019	101	211		19	20
2020	92	156		18	18
2021	93	176		20	27

Anchor Medical Associates

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Lessons Learned

Sustainability, Next Steps

- Learned that RPM using the PRiSM platform was not been ideal for our practice due to lack of EHR integration, difficulty with supporting API connected devices (which limited reimbursement) and overall increased care team time necessary for onboarding, patient training and managing these patients. This limited our ability to expand the program to the entire at-risk population we originally intended to target.
- We have started discussions with several other RPM vendors to explore other solutions. We are looking for a RPM solution that is integrated with our EMR and would take on most of the patient onboarding, adherence, and technical issues. We think we may have found an ideal vendor and are proceeding with implementation talks.
- While improved, our data is showing continued opportunity for improvement in GDM rx prescribing. We will be using this data to support chart reviewed, continued referral and involvement of the PharmD, and coordination with providers and specialists with the goal of improving GDMT.
- This data will also be used as part of an education program for provider on current status of heart failure management within our practice.

RI Primary Care Physicians Corporation/Integra

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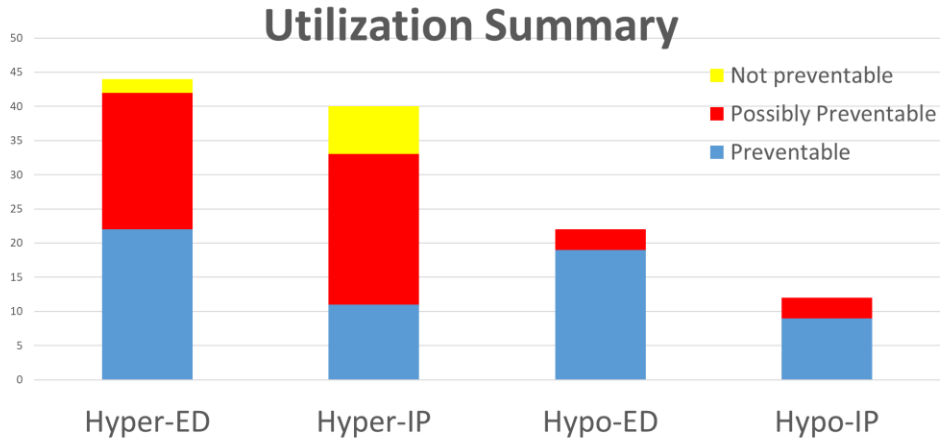
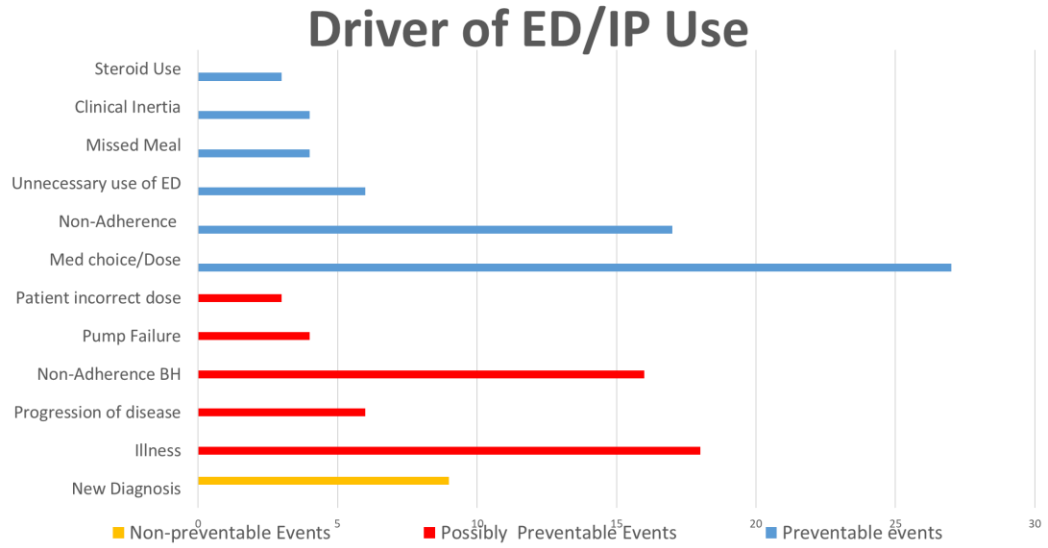
Outcomes/Results/Patient Surveys



- **102 patients used the ED/IP setting 118 times**
- **47% (55/118 events) were attributed to medication-related event**
- **37 pharmacist recommendations accepted (88%)**
  - **Most common recommendations:**
    - Discontinue sulfonylurea
    - Start SGLT2i/GLP1RA
    - Adjustment of insulin dose or product
- **30 patients referred to NCM/social worker for follow up**



- **The most prevalent cause of preventable ED/IP use was related to medication choice/dose in our population**
- **22 preventable ED/IP hypoglycemia utilizations were identified**
  - 14 were attributed to oral sulfonylurea use in older adults with A1c <7%
  - 8 were attributed to insulin dose or type

Lessons Learned

Sustainability, Next Steps

- ✓ Created new position : Clinical Program Development and Operations Manager
- ❑ Implement evidence-based clinical care pathways and protocols in collaboration with the Medical Management, Pharmacy and Quality Committee as well as the Medical, Pharmacy and Nursing Directors.
- ❑ Establish a targeted clinical review committee
- ❑ Continue CQI to more clearly define care team roles
- ❑ Care management redesign
- ❑ Develop disease state management competencies
- ❑ Perform routine chart audits

Women's Medicine Collaborative

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Outcomes & Results

Outcome of HBPM Program

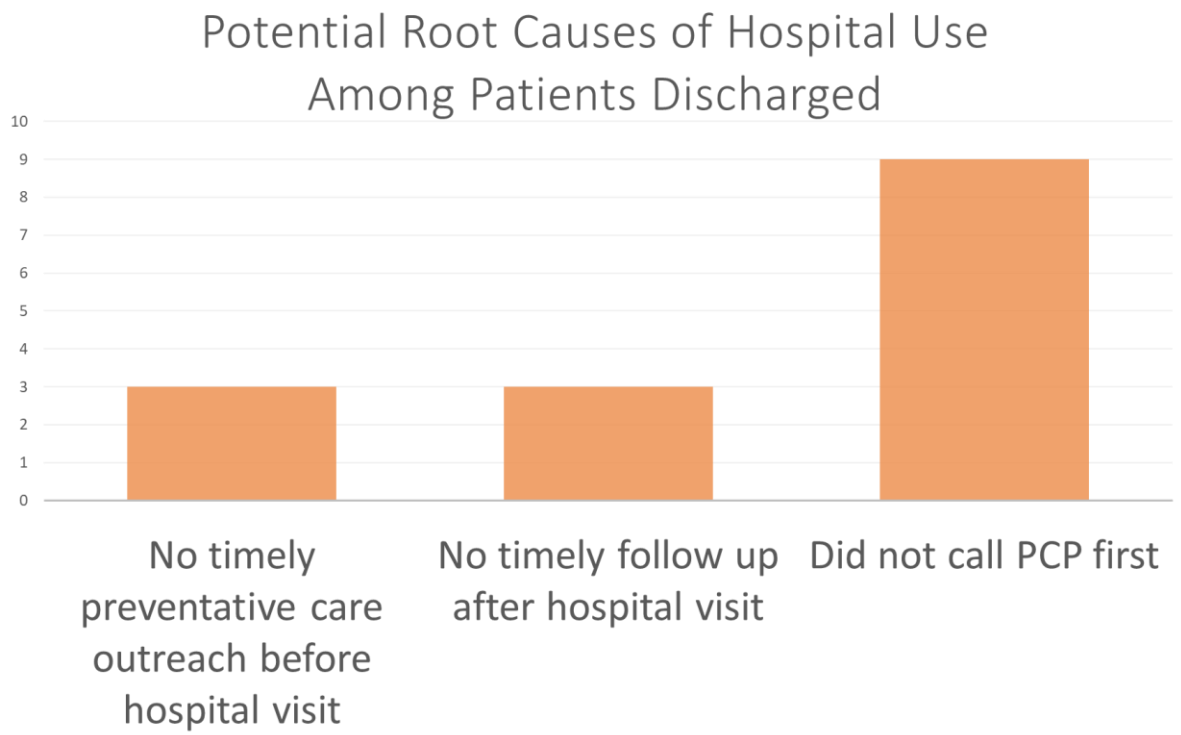
- 27 out of 31 enrolled patients completed HBPM program
- 100% of patients achieved sustained BP <140/90 by 12 weeks
- Mean # of follow up encounters required to achieve BP control: 2.7

WMC 2021 Primary Care Quality Score Results

- Of the patients with history of HTN, 80% achieved BP of <140/90 by 12/31/2021
- Close to goal but did not achieve target of 82% for 2021.
- Though just 2% shy of our goal, this is a 6% improvement from 74% in 2020.

Review of HTN-related Hospital Visits

- Total of 55 hospital discharges between 6/1/21 and 3/1/22 with chief complaint possibly linked to HTN
- Identified 10 patients with uncontrolled HTN prior to hospital visit
- Root cause analysis performed to identify common patterns leading to hospital use
- Patients not calling PCP office prior to hospital visit was most common predictor of hospital use:



Women's Medicine Collaborative

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Lessons Learned

Sustainability, Next Steps

- **Care Team Development:**
  - Hired Patient Care Coordinator and Care Navigator to assist with quality work
  - Continue team collaboration with PCPs and wider clinical leadership team
- **Improvements in HBPM Program workflow:**
  - Patient Care Coordinator is now single point of contact, achieving greater efficiency and freeing up clinical staff time
  - Increased use of patient portal for efficiency
  - Moving forward, set hard deadline on loaner BP cuff return due date at 12 weeks to increase cuff availability for new program patients
- **Identified Clinic Workflow Improvements:**
  - Collaborate with clinical leadership to improve patient education messaging ("call us first" policy)
  - Improve current appointment accessibility to ensure timely follow up

Providence Community Health Centers

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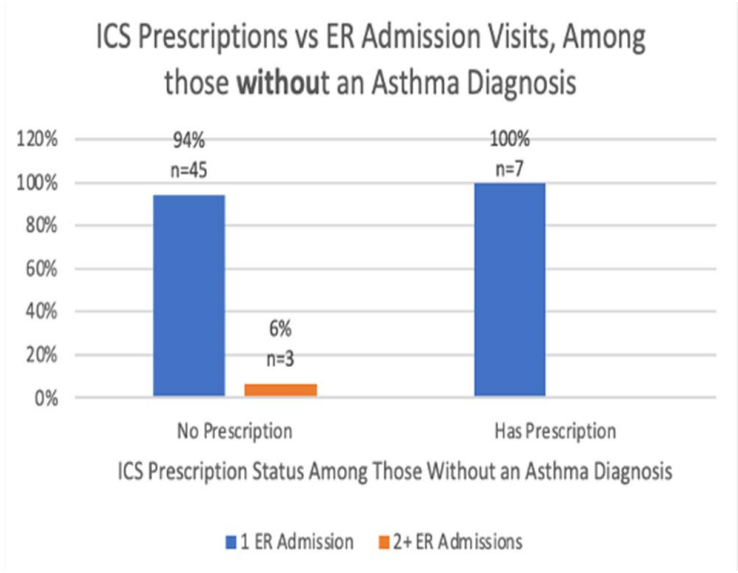
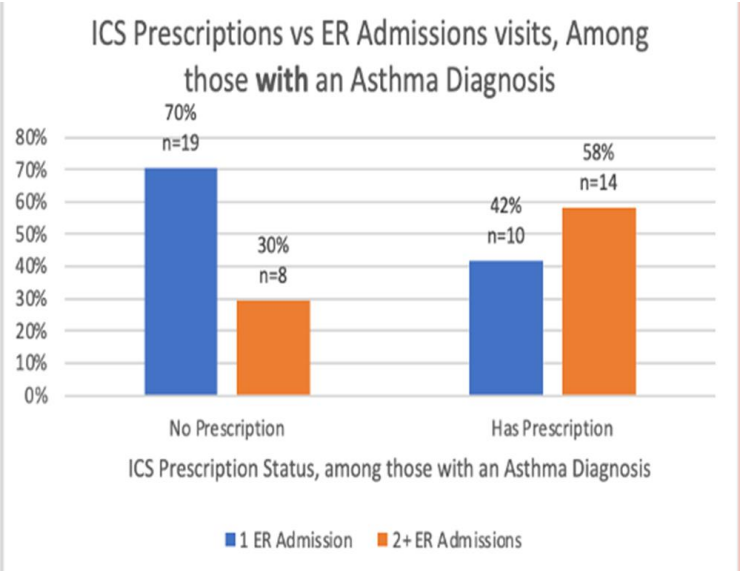
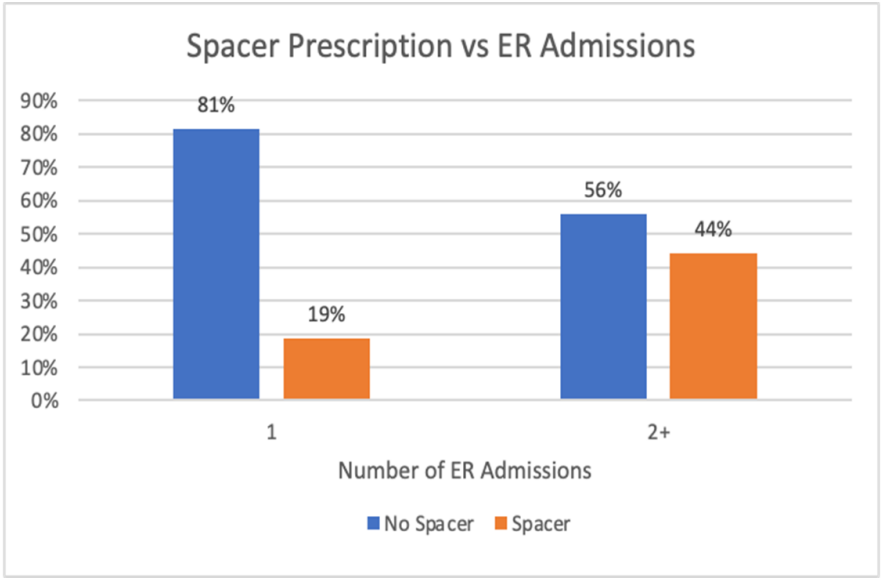
Outcomes/Results/Patient Surveys







Pharmacist Total Interventions	Pharmacist Total Medication Interventions	Medication Changes Acceptance Rate	Medication Adherence Issues Identified by Pharmacist
56	28	89%	62.5%

Lessons Learned

Sustainability, Next Steps

- Continue to engage patients discharged from the ED/IP settings who have an asthma-related diagnosis by offering pharmacy consults and close follow up with primary care providers during transitions of care
- Consider establishing a full-time position of **asthma educator**
- Work with PCHC clinical teams to device health care system workflows to educate newly diagnosed patients and those recently discharged from the ED/IP settings
- Facilitate educational programs to benefit **PCHC providers and clinical teams improve adherence to evidence-based guidelines**
- **Collaborate with the RIDOH** to deploy trained staff to patients' homes to assess environmental triggers and complement team with disease state education
- Design **electronic** educational materials for **children** in order to establish more **accessible** and more **easily distributable** materials for newly diagnosed children with asthma

Survey of Clinician Well-Being Post-QI Initiative

CONDUCTED MAY 2022

CTC-RI PREVENTING AVOIDABLE HOSPITAL USE PROJECT

Mini-Z Scale of Provider Well Being

- Z for “zero burnout”
  - Developed by Dr. Mark Linzer and colleagues (Hennepin County Medical Center, MN)
    survey link
- The 10 question survey items assesses three outcomes of burnout
  - burnout, stress and satisfaction
- and seven drivers of burnout
  - work control, work chaos, teamwork, values alignment with leadership, documentation time pressure, EMR use at home, and EMR proficiency
- Demographics (we added these items)
  - gender; years of experience; practice; work role

Well-Being Survey Highlights

- 91% of respondents agree or strongly agree that they are satisfied with their current job
  - Compared to 83% pre-initiative

- 2% disagreed that their professional values were well aligned with their clinical leaders
  - Compared to 4% pre-initiative

- 69% of respondents stated that they "don't feel burned out" or "have no symptoms of burnout." – compared to 59% pre-initiative
  - 31% reported feeling symptoms of burnout - compared to 41% pre-initiative
  - 0% reported: "I feel completely burned out. I am at the point where I may need to seek help."

Post-Program Well-Being Survey Results

Years of Experience

0-5 years | 18%
6-10 years | 20%
10-15 years | 24%
15+ years | 38%

Total Survey Respondents

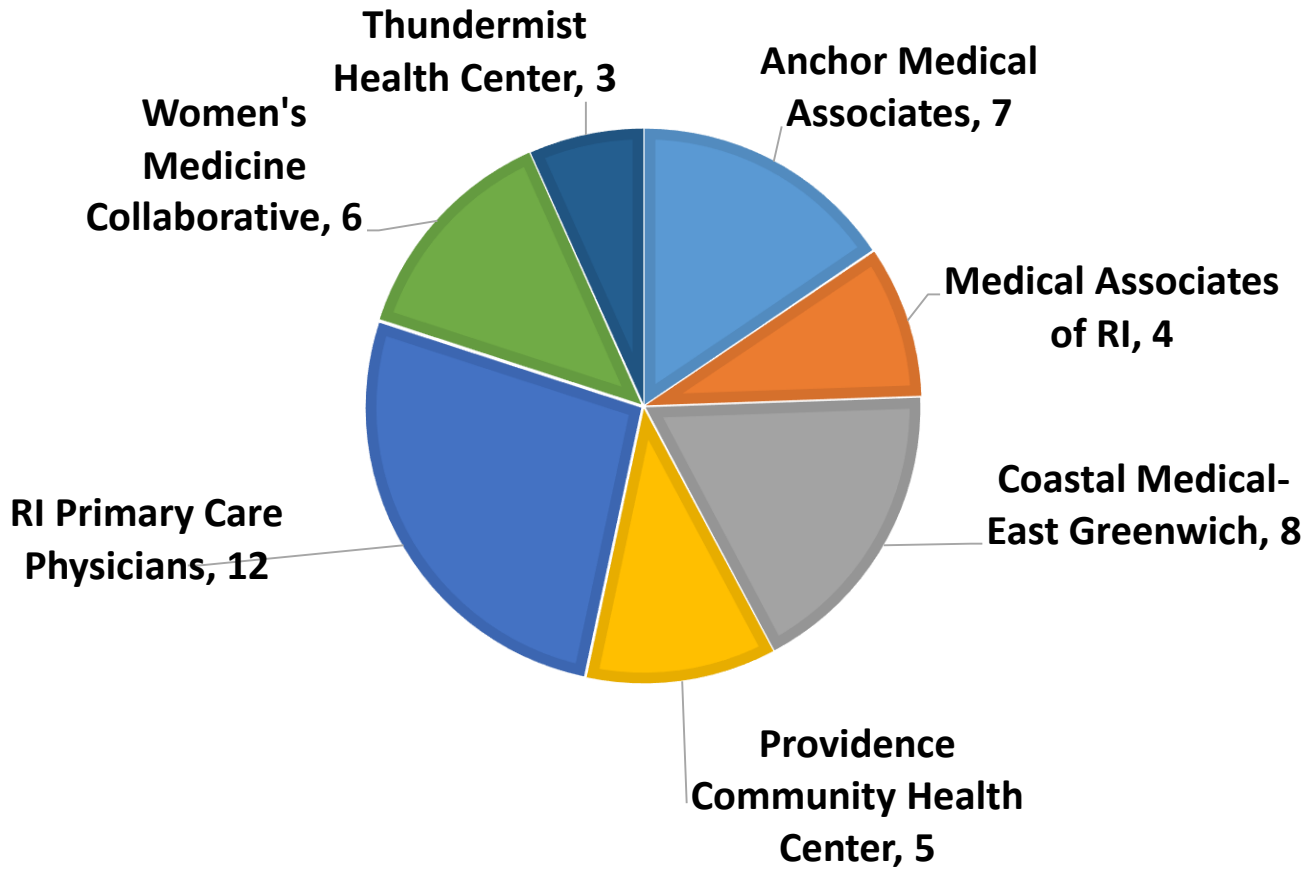
Work Role

Physicians | 13% (Pre: 28%)
Pharmacist| 47% (Pre: 19%)
Nurse Care Manager| 16% (Pre: 8%)
Physician Assistant| 2% (Pre: 3%)
Practice Manager| 4% (Pre:3%)
Other | 18% (Pre: 27%)
Medical Assistant | 0% (Pre: 5%)
Nurse Practitioner | 0% (Pre: 7%)

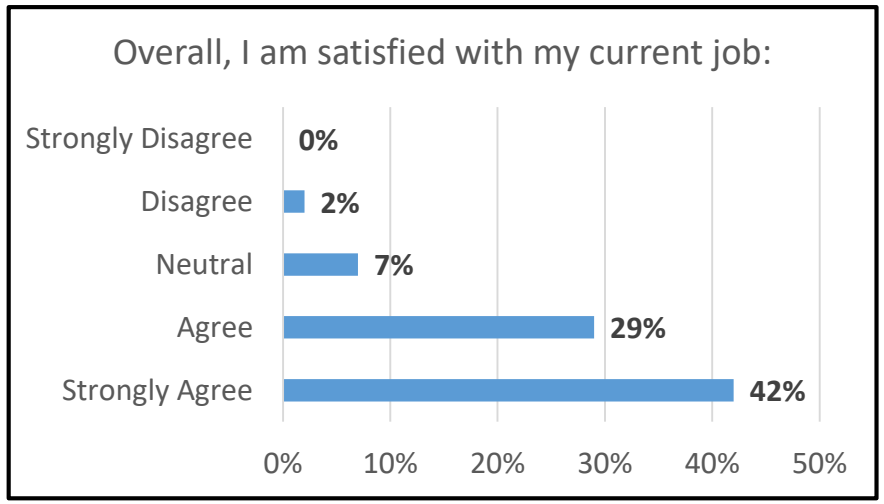
Gender

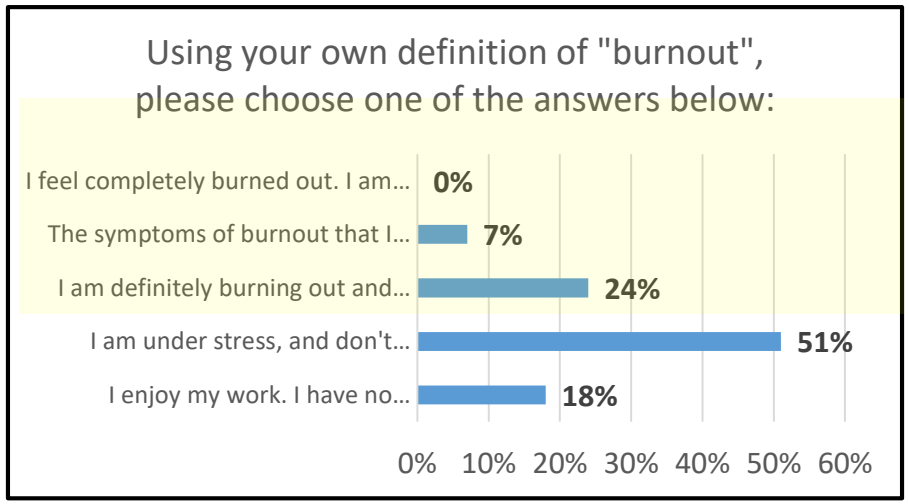
Woman| 80%
Man| 18%
Prefer not to say| 2%

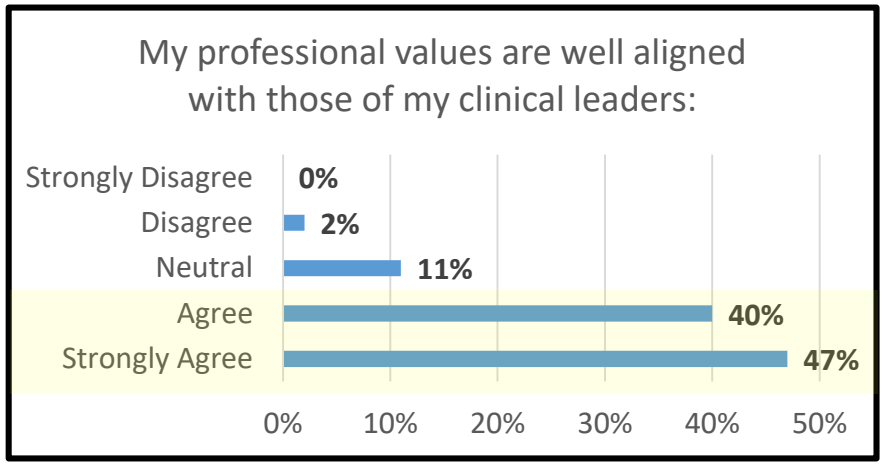
Respondents by Practice

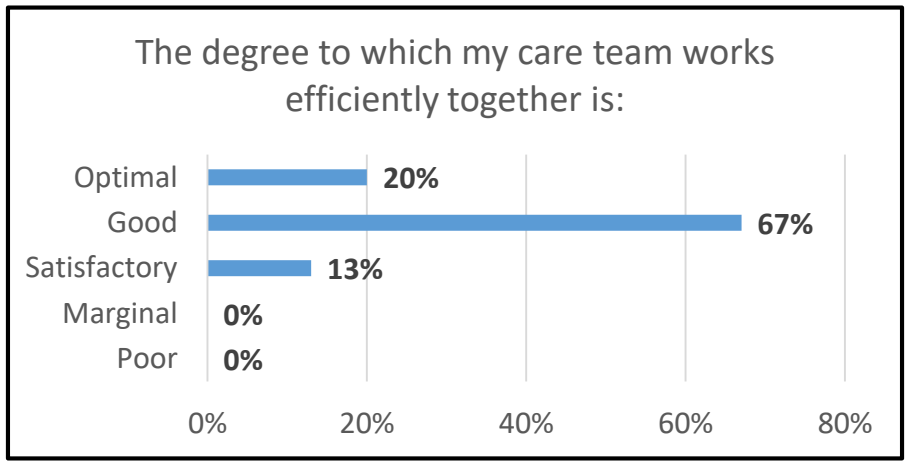


Post-Program Wellness Survey

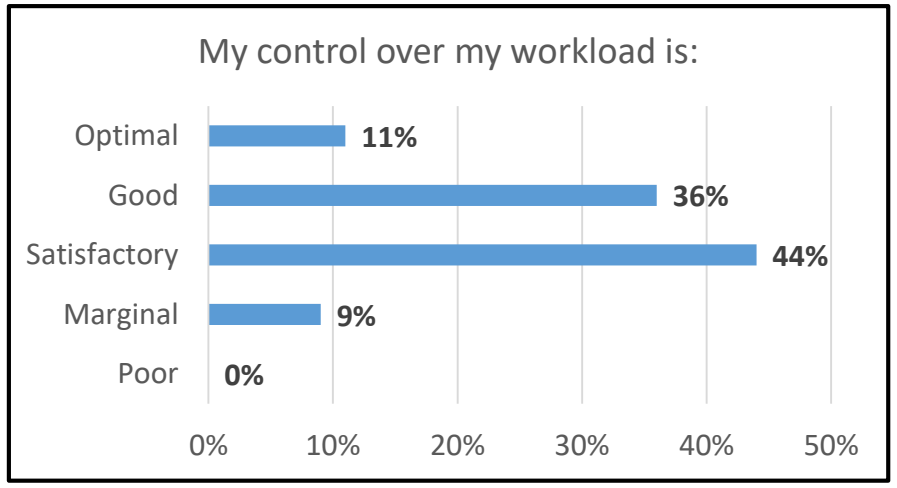


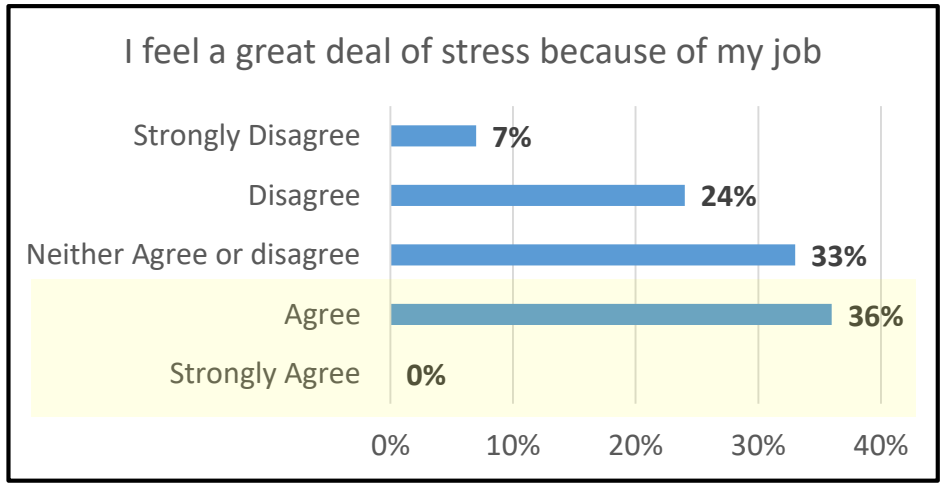


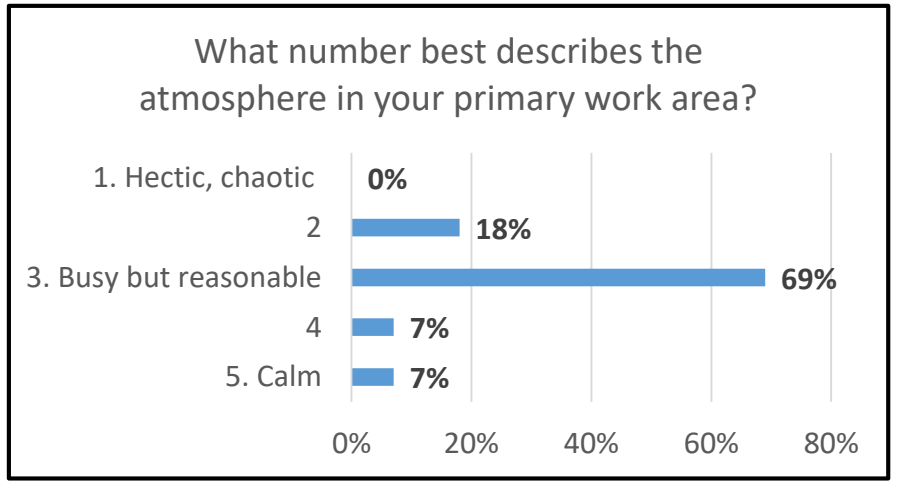




Post-Program Wellness Survey





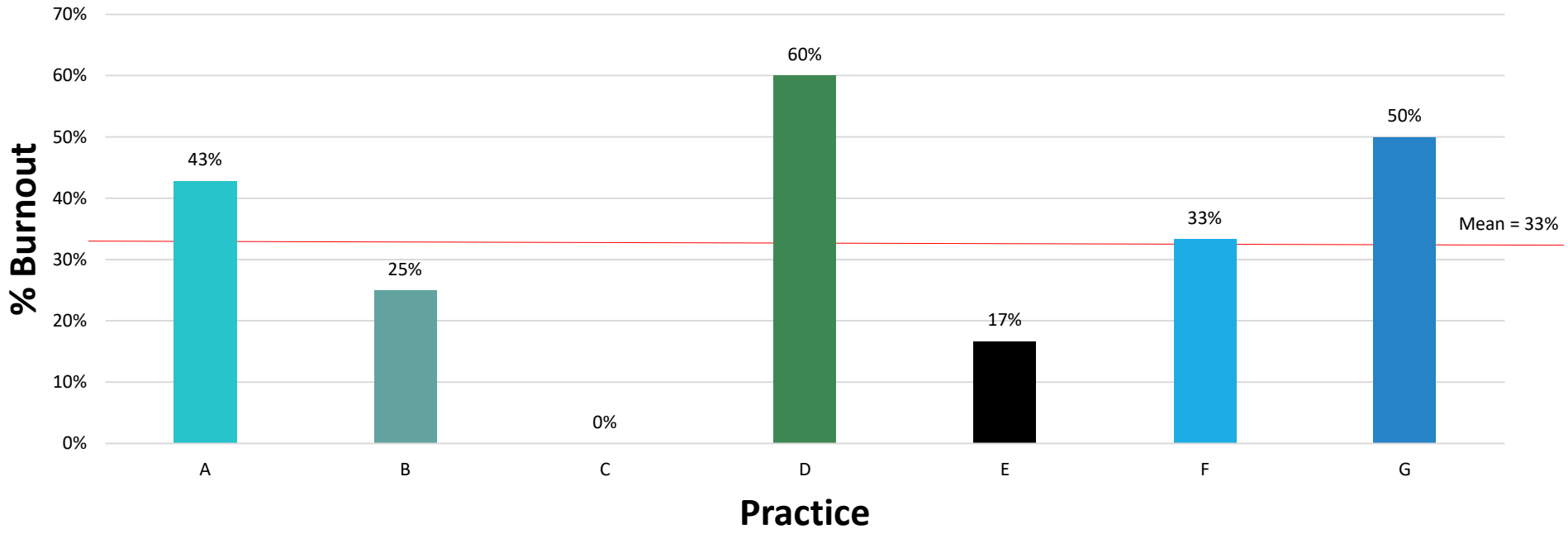


Burnout by Clinician Type

*Responded *"I am definitely burning out and have one or more symptoms of burnout," or "The symptoms of burnout that I am experiencing won't go away."*
** NONE Responded "I feel completely burned out"*

	Percent indicating burnout* PRE-PROGRAM	Percent indicating burnout* POST-PROGRAM
Overall	**41%**	**31%**
Physician	39%	33%
Pharmacist	20%	29%
Nurse care manager / NP/ PA/ Other	50%	33%

Burnout By Practice: Post-Program



*Responded *"I am definitely burning out and have one or more symptoms of burnout," or "The symptoms of burnout that I am experiencing won't go away."*
** NONE Responded "I feel completely burned out"*

“How has this learning collaborative affected your team's well being?” (selected responses, abbreviated)

- “Improved f/u for complex diabetic patients.”
- “Over the past several months with the Omicron surge, it has been challenging to balance priorities and dedicate the time we would like to advance this work more quickly. This learning collaborative has been helpful to keep accountability to driving positive change forward and been extremely supportive.”
- “It had a positive impact on restructuring the roles within our company which had allowed us to optimize our time/resources.”
- “We've looked for opportunities to streamline work and create efficiencies. Utilizing technology has helped to put the right patients in front of the care team at the right time.”
- “On one hand has given us more of a workload, so negative for well being. On the other hand it has given leadership roles and helped us stay on track with the help of the facilitator which has been positive for well being.”
- “Has helped improve collaboration greatly.”
- “It has given teams the opportunity to take a step back and level set expectations and priorities based on the initiative. It fostered collaboration and streamlined communication, processes, and opportunities for efficiencies.”
- “It has allowed us to work more closely together as an interdisciplinary team.”

“How has reducing preventable hospitalizations and ED visits impacted your professional well-being?”

(selected responses, abbreviated)

- “It always feels wonderful to have this impact on our patients and reminds us why we chose this profession.”
- “Improved job satisfaction and feeling we are making a real difference in our patient’s lives.”
- “As a clinician I always "feel better" when a patient is getting the right care at the right time, by the right healthcare professional. It brings a sense of joy knowing that a patient is not sitting in a ED just to go home and follow up w/PCP after no interventions that were acute were to be had.”
- “Has helped streamline a referral process for patients. Results and provider feedback/satisfaction assisted in showing pharmacist's value.”
- “Working on projects to improve patient care and demonstrate pharmacy value leads to increased job satisfaction.”
- “Sense of pride in pharmacy profession that we can make a big difference.”
- “ It is reassuring and helps make the work a bit lighter when you know that you are making a difference and achieving outcomes.”
- “Having clinical pharmacist support makes post hospital follow ups more manageable.”

THANK YOU

- Next Cohort Funding