Paramedic ROI Learning Discussion

The program will begin at 2:00 pm ET.

Ground Rules and Expectations

1. Today's discussion is scheduled for an hour
2. What to expect
   - Our goal is to allow ACOs to share their experience, answer questions and raise points of interest in a collaborative discussion.
   - Feel free to turn your video on and speak up when you feel the need. Please mute yourself when not talking.
3. Today's program is being recorded
   - Recordings will be posted to NAACOS's
   - We presentations keyed up from Advocate Aurora Health and The Institute for Accountable Care. Discussion will happen along the way.

Agenda

1. Welcomes and housekeeping
2. Presentations
    a) Advocate Sherman Hospital - Mobile Integrated Health-Community Paramedicine
    b) Institute of Accountable Care ROI tool
    c) Questions submitted in advance
3. Open forum and discussion

Introductions

	**Melody Danko-Holsomback** Vice President of Education NAACOS
	**Jennifer Perloff** **Director of Research** Director of Research at the Institute for Accountable Care and a Senior Scientist at Brandeis University
	**Sam Sobul, MPA** **Policy Analyst** Policy Analyst with the Institute for Accountable Care

Presenters

Tina Link, Manager of Community Outreach, Advocate Sherman Hospital

Mike Barbati, Director of Government & Value-Based Programs, Enterprise Population Health

Advocate Sherman Hospital

Mobile Integrated Health-Community Paramedicine

November 17, 2021

AdvocateAuroraHealth®

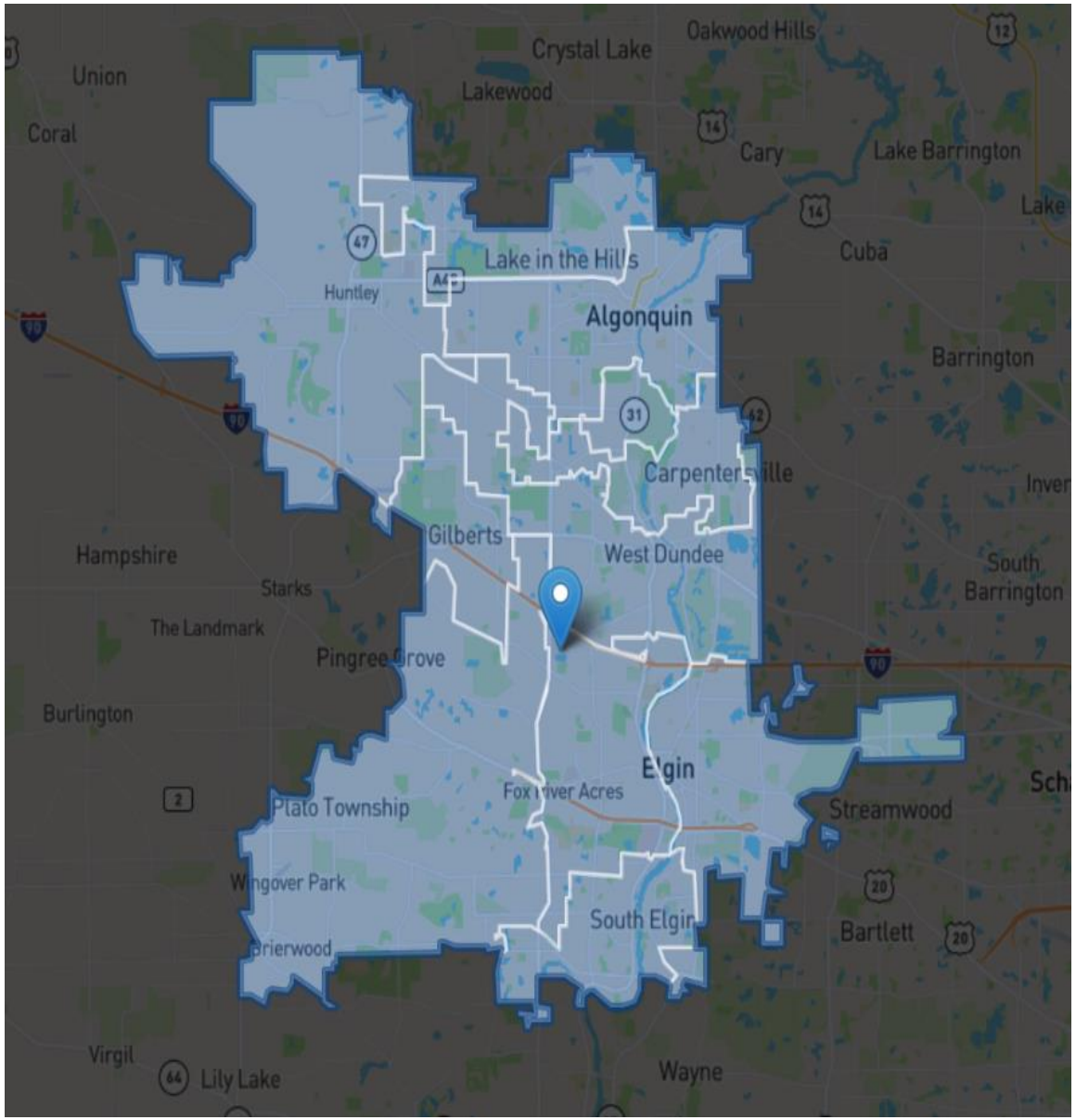
Advocate Aurora Health

26 HOSPITALS	**500+** SITES OF CARE	**75K** TEAM MEMBERS	**10K** PHYSICIANS
$2.2B COMMUNITY BENEFITS	**$12B** REVENUE	**TOP 12** NOT-FOR-PROFIT HEALTH SYSTEM	

- **1.3M covered lives**
- **20+ years in value-based contracts:**
- **At Risk Contracts:**
- **87,000 Team Member lives**
- **221,000 Commercial HMO lives**
- **98,000 Medicare Advantage lives**
- **87,000 Managed Medicaid lives**
- **184,000 Medicare Shared Saving Program lives**
- **577,000 Commercial Shared Savings lives**

Advocate Sherman Hospital

- 130 years of service to our community
- Advocate Aurora Health—system IL & WI
- 255 beds; all private rooms
- Magnet Hospital
- Watson Health 100 Top Hospitals
- Level 2 Trauma Center
- Fully accredited by DNV
- 4 outpatient centers
- 2,000+ associates (733 Nurses); 877 physicians; 71 specialties
- 15-acre geothermal lake heats and cools facility



MIH-CP Team

Deb Ernest, *Mobile Health* ***Paramedic***
Tina Link, ***Manager*** *of Community Outreach*
Ken Snow, *Lead Mobile Health* ***Paramedic***

MIH-CP Program

First approved program in Illinois which supports paramedic visits to patient homes

Our goal is to *reduce hospital readmissions* and *unnecessary ED visits*

MIH-CP application approval

Program goal:

- Reduce overall readmission rates by 5 %
- *2016 goal*: 60 patients within first year of program

Patient Conditions of Focus:

- Asthma, Diabetes, Heart Failure, Obstructive Pulmonary Disease (COPD), MI (Heart Attack),
- Cancer Care Symptom Management *(Oct 2018)*
- No SNF/Home Health
- Over the age of 18
- Must have PCP

Start Up Budget

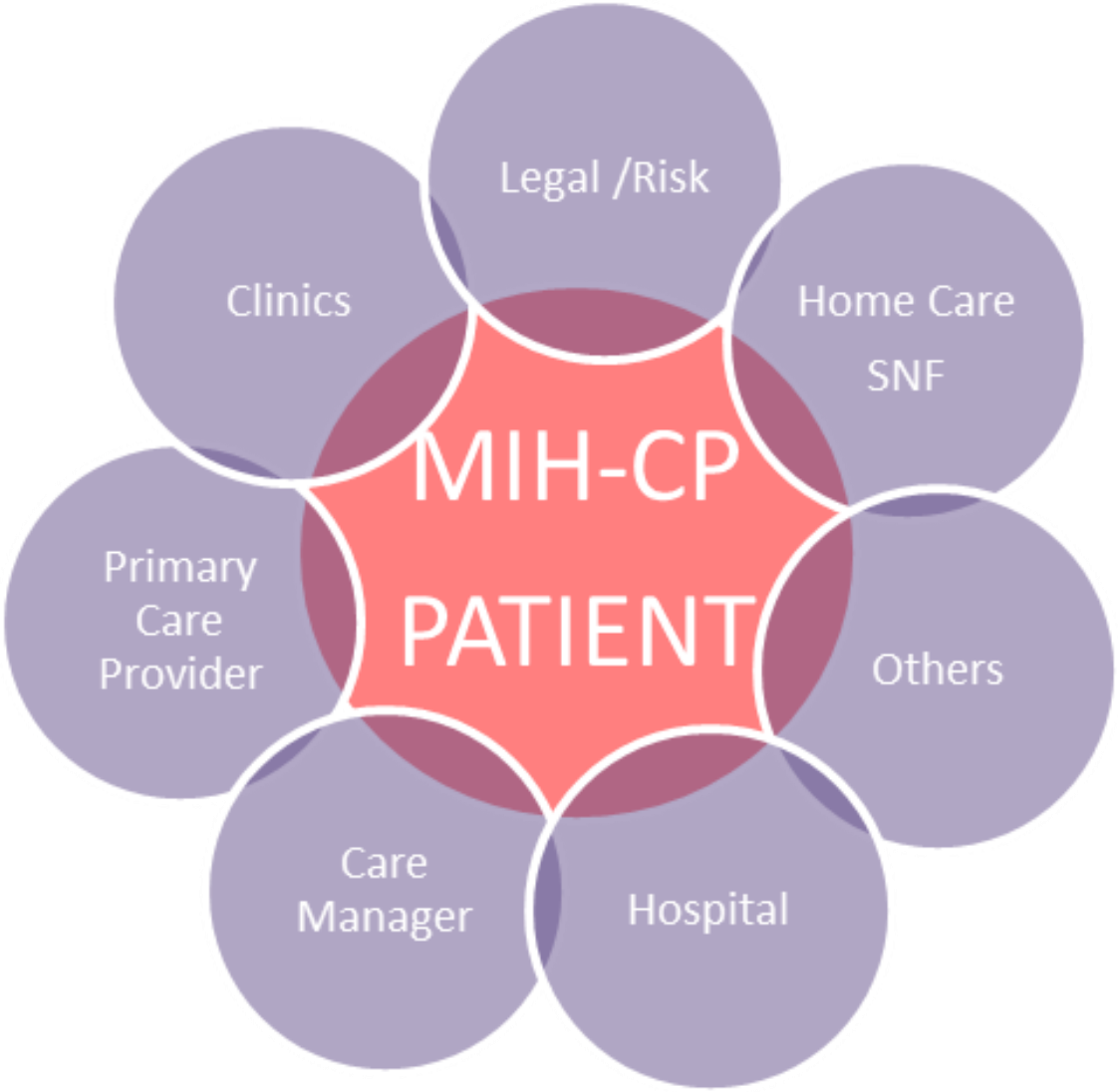
- **Approx. $221,000 initial set up**
  - **Supplies = $73,000**
  - **Staffing = $148,000**

On Going Budget

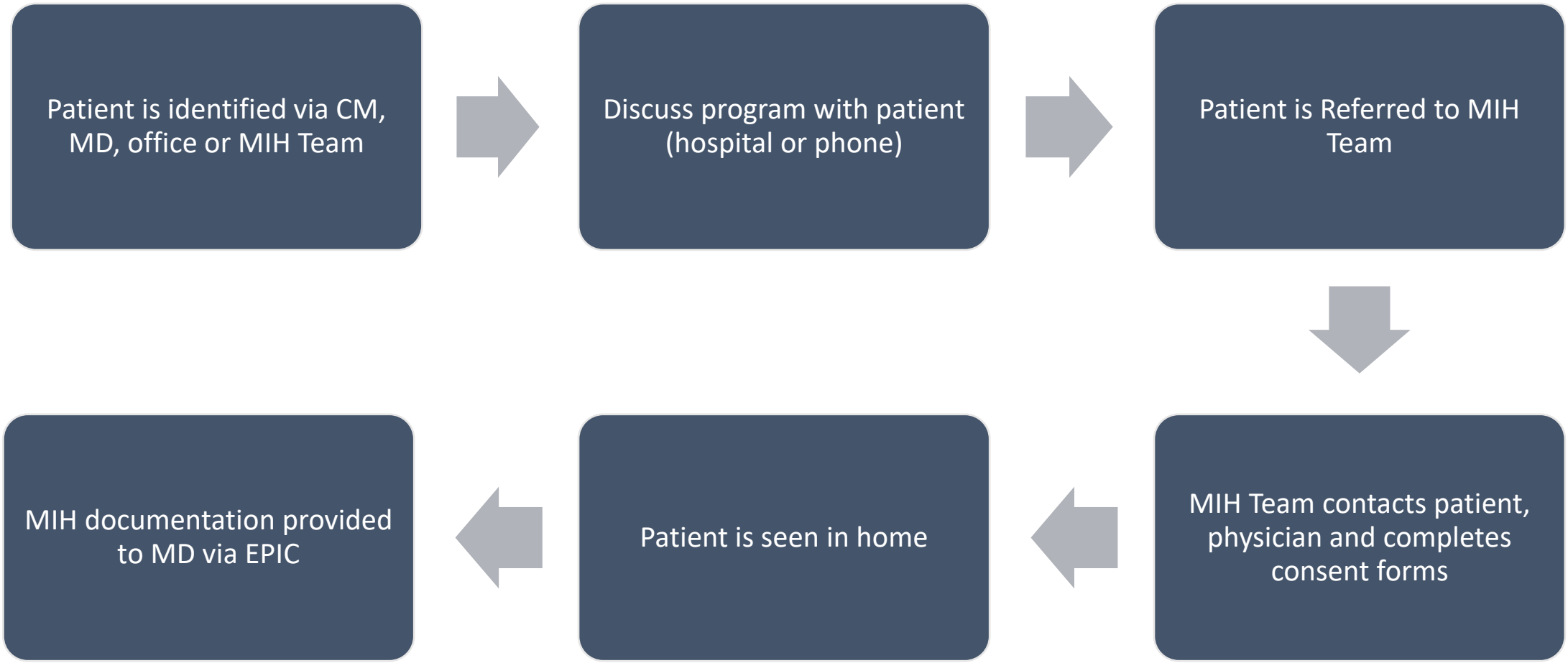
- **$160,000 rough estimate**
  - **Many variables to determine budget**

Collaborative Team

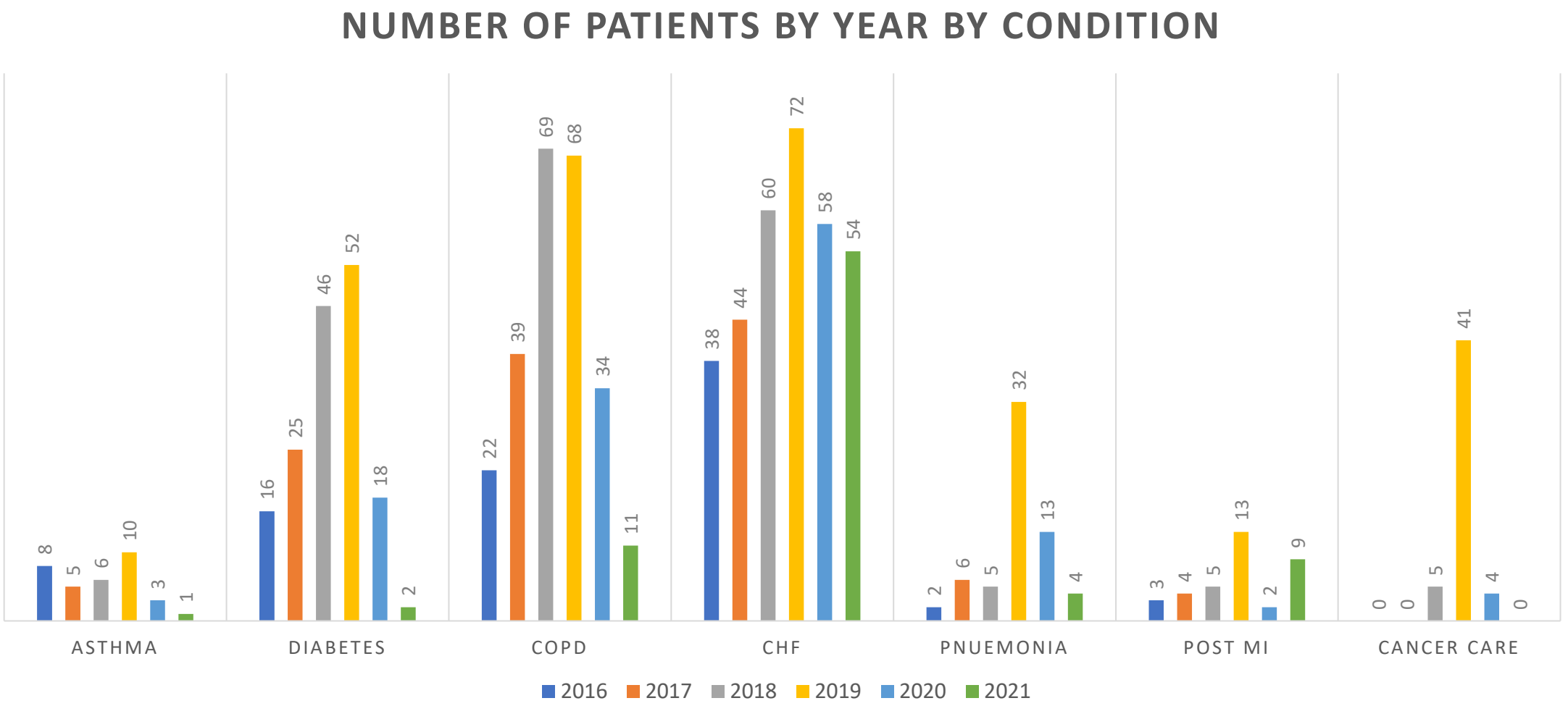
- Physician, Medical Director, Nurse Practitioner, Specialist
- Care Managers, Social Workers, Discharge Callers, Community Health Worker
- Clinics: Heart Failure, Respiratory, Diabetes
- Attorney, Risk Manager
- Home Care, Skilled Nursing Facilities
- Police, Social Service Agencies, Health Departments, Federally Qualified Health Centers, Pharmacies, Township Offices, Utilities, Fire, Transportation Services
- Administration, Community Outreach, Population Health, ED, EMS, Information Technology, Interpreter Services



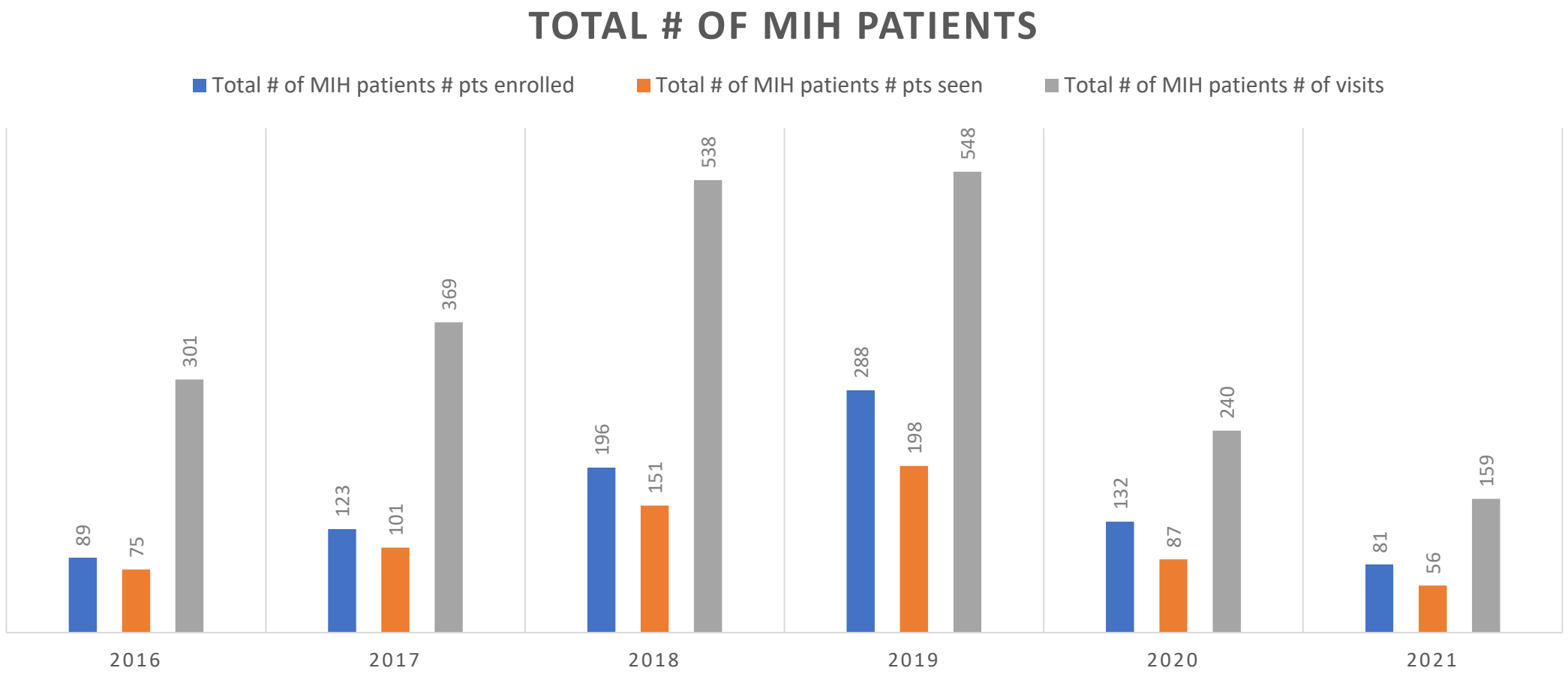
Process: Overview



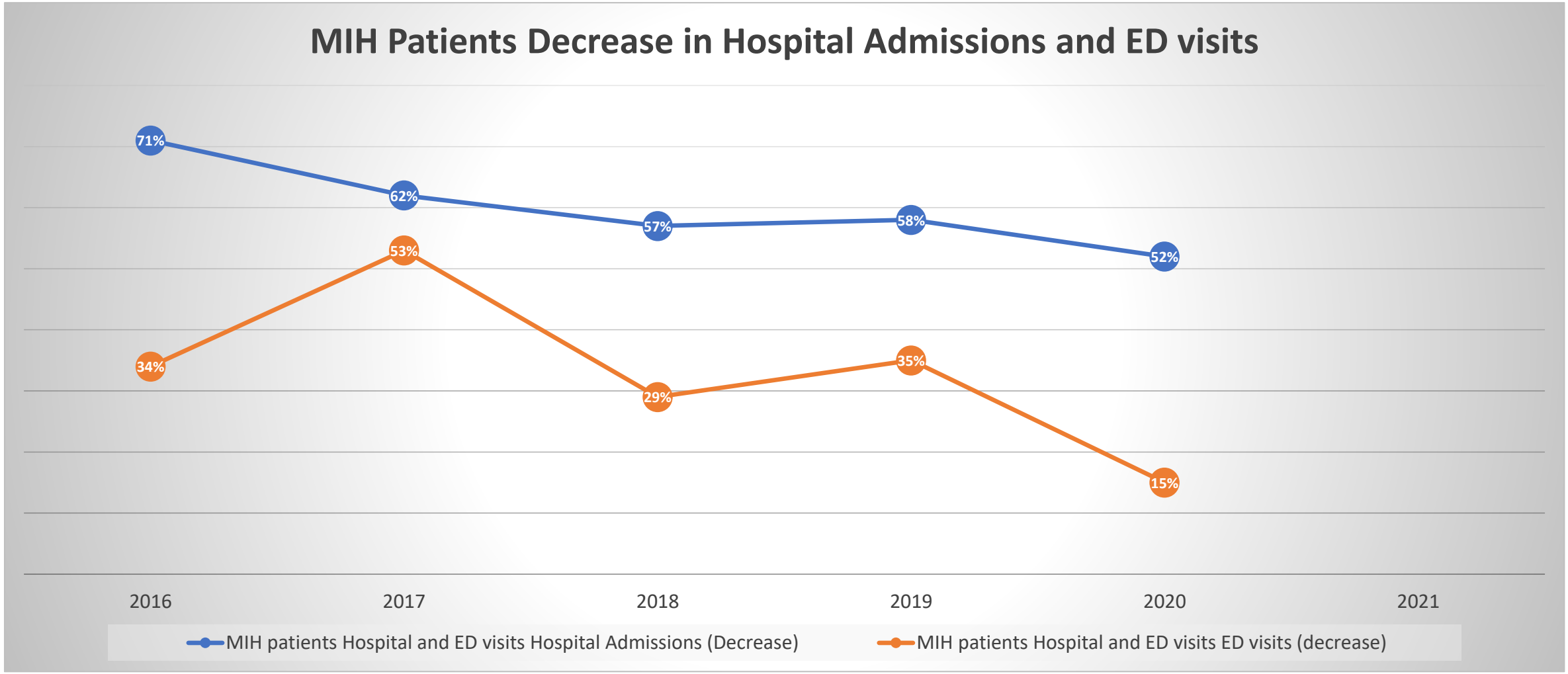
Mobile Integrated Health YoY



MIH Visit Volumes

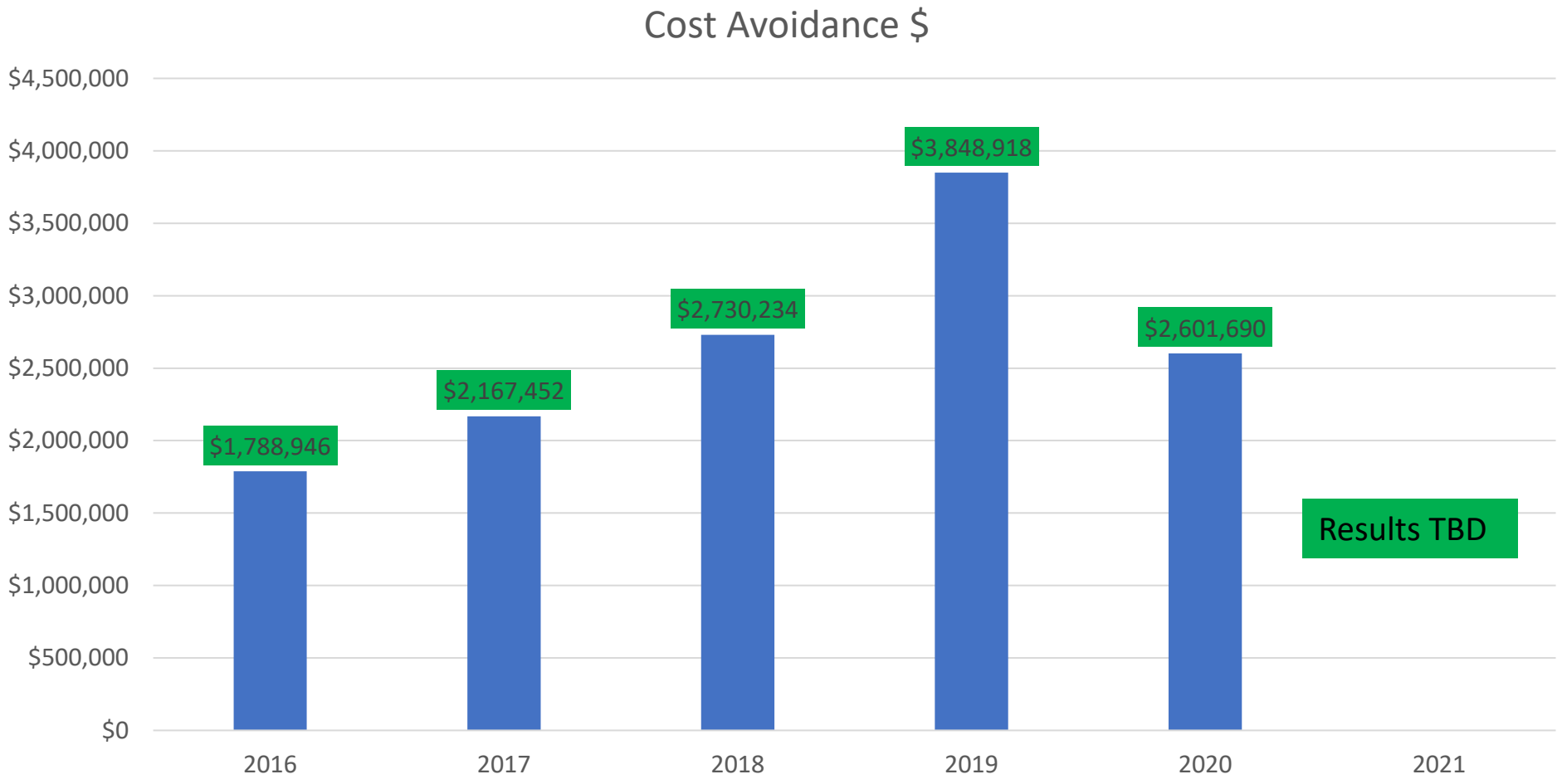


MIH Utilization Changes



Footnote for how this is measured:

Total Cost Avoidance



Cost Avoidance Methodology:

Pre- and Post- # of visits:

- ED Visits
- Hospital Admissions

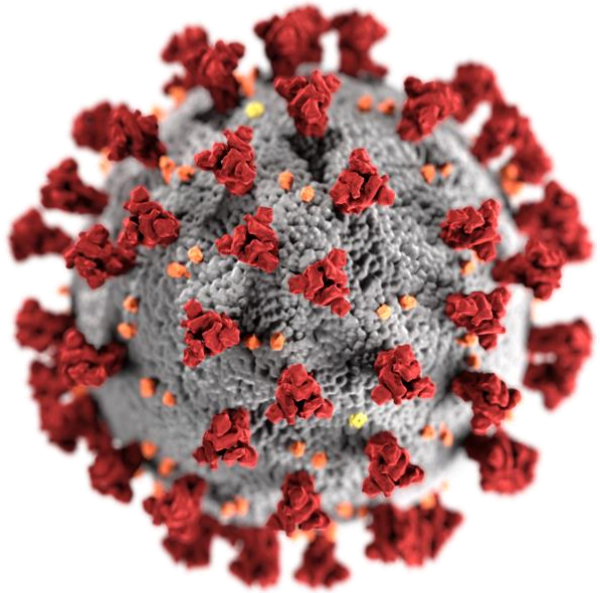
2019 Accomplishments

IHA Quality Award

Innovations in Care and Quality

September 26, 2019

2020—MIH program



In-person visits decreased

Telephone visits

Follow up care for COVID patients

- Results given to ED patients/Inpatients discharged prior to receiving results (June-December)
  - ➢ 2,201 calls
    - ➢ 405 negative & 28 positive Inpatient calls
    - ➢ 1,254 negative & 514 positive ED patient calls
- Infusion (Bamlanivimab) in ED
  - ➢ Started January 2021

Lessons Learned / Barriers

- State limitations on program
- Staffing—hiring the RIGHT people for the position
- Process for identifying patients—limitations
- Physician consents not returned timely
- Unable to identify Full Risk patients

Thank you!

AdvocateAuroraHealth

ROI/Cost Benefit Assessment tool for ACOs

Institute for Accountable Care
November, 2021

Background

- Tool grew out of an ACO Learning collaborative focused on home visit models for high-need, high-costs
- Consistent theme – need a way to demonstrate ROI of our program model
- Developed a program specific tool that includes both return on investment and cost benefit ratio
- Unique features
  - Considers ACO cost structure and organizational arrangements
  - Sought out ACO based effectiveness research
  - Impact on shared savings

Matching ROI analysis to phase of development

	Pilot	Small Scale Implementation	Larger Scale Implementation – single site	Cross-site Implementation within a single system
Number of participants	10-50	50-300	300-1000	1000-3000+
Evaluablity	Low	Low	Medium	High
Comparison group	Participants own baseline	Similar patients within CM or related programs (within ACO)	More rigorous internal or external comparison group	More rigorous internal or external comparison group
Monitoring costs	Start-up costs; early implementation- prices may be high as you try to determine right labor mix, staffing intensity	Model stabilizing – better understanding of stable operations budget	Model continuing to stabilize	Operating at scale or close to scale

Basic Inputs

Operating Costs (provided by ACO)

- Number of beneficiaries per year
- Intensity and duration of care
- Staffing – LOE and salary costs
- Driving & Milage
- Visit specific costs (e.g., PPE, disposable testing equipment)
- Fixed, program costs (e.g., case management software)

Savings/Offsets (selected by ACO)

- Estimated savings based on prior research
- Internally generated savings estimates
- Impact on ACO quality and savings (indirect savings)

Calculations

- Done within worksheet based on input data elements and selected savings

Return on Investment

Program return on investment

Values from other tabs will automatically populate here for summary results.

	Investment-side			Return-side	
	Total clinical labor costs	$517,440		Total visit reimbursement	$226,340
	Total administrative labor costs	$56,400		Total shared savings	$1,182,768
	Total mileage costs	$6,570			
	Total variable costs	$196,000			
	Total fixed costs	$56,000			
	Total overhead costs	$5,000			
	TOTAL	$837,410		**TOTAL**	$1,409,108
	Total/visit	$209		Total/visit	$352
	Total/patient	$1,675		Total/patient	$2,818
			Program ROI:	**68%**	

ROI = [Current Value (reimbursements) – Cost of Investment (implementation costs)]/ Cost of Investment (implementation costs)

- Basic question – are the reimbursements for a given program higher than the operating costs?
- Challenges include fully accounting for all costs to deliver a model and not actively capturing the value of off-sets (e.g., averted Inpatient Stay)

Cost Benefit Analysis

Cost benefit ratio = [Benefits – Costs]/ Costs

- Basic question – do the benefits exceed costs?

- Broader definition of Cost
  - Direct and Indirect costs
  - Intangible costs, such as employee burnout
  - Can incorporate opportunity costs or potential risks
- Broader definition of Benefits
  - Reimbursement
  - Cost off-sets
  - Intangibles like market share

Example: Excel Based Costing Worksheet

Inputs include the Number of beneficiaries, visits and visit intensity

Enter in the number of patients you expect to serve with the program (make sure this is the number of patients served, not the entire eligible population).

Patients to serve: 500

Total visits in the year (all patients): 4000

(2) Visit Intensity

Enter in the number of times you expect, on average, to visit each patient per year.

Visits/patient/year: 8

(3) Clinical staff

Enter in the hourly wages for the staff

*By provider type - enter in the average **reimbursement** amount per home visit, the % of all visits expected to receive reimbursement, and % of visits conducted.*

		Hourly Wage		Total staff by type	Hours per month spent on program	Total costs (annual)	Reimbursement rate (Revenue)	% of visits reimbursed	performed by this type of staff	Subtotal
Physicians	MD	$150	MD	2	30	$108,000	$100.00	100%	10%	$40,000
Nurse Practitioners	NP	$59	NP	2	160	$226,560	$70.00	90%	50%	$126,000
Registered Nurse	RN	$59	RN	2	80	$113,280	$50.00	75%	35%	$52,500
Paramedic	PM	$25	PM	2	80	$48,000				$0
Pharmacist	PHARM	$0	PHARM			$0				$0
Social worker	SW	$20	SW	1	40	$9,600	$65.00	80%	3%	$6,240
Community Health Worker	CHW	$10	CHW	5	20	$12,000	$40.00	50%	2%	$1,600
Other	O	$0	O			$0				$0
			TOTAL	14		$517,440	$65	79%	100%	$226,340

Other Costs include labor, travel, visit specific costs and the fixed costs of operating the program

Estimating Savings

Offsets estimations from reduced utilization for Paramed programs.

Review the study populations and services provided below. Select the savings amount based on the best match to your program by clicking on that row in Column A and selecting "Use" from the dropdown menu. This will be added to the HBPC offsets. (Note: If you are only calculating offsets for a Paramed program, select "Use" for the choose your own value row (row 23) on the HBPC offsets tab and enter zero.)

Select One	Program beneficiaries and setting	Program services and provider types	Savings based on…	Treatment population	Savings per patient per year (2020 $)	Rating	User Interpretation Notes	Citation
	Average across Paramed programs				$1,054			
Use	Enter your own estimate on savings per pt. per year				$550			
Use	• Median age 44 yrs., 58% African-American, 55% Female • Those who called 911 but did not necessarily require immediate transport to a hospital Emergency Department	• Service providers: EMTs, ED physicians. • EMS has a tablet with HIPAA-compliant teleconferencing ability; physician on-site available for virtual visit. • MD determined 1. transported by ambulance to the ED, 2. pre-paid taxi ride to the ED, or 3. appointment at a primary care clinic.	Reduction in ED visits, EMS Agency Provider Costs	5,570	$202	**	• Results shown annualized amount based on 12 months of data.	Langabeer et al, 2017

- **Too provides Savings/Off-sets** from literature
- ACOs can also add **Your Own** estimates

Estimating the contribution to shared savings

Shared savings calculations

Follow the blue prompts to input assumptions in light green boxes. The gray boxes include formulas that contain calculations based on values in the green boxes.

(9) Savings from reduced ED visits (optional)

If you chose offsets from a study that only reported on reduced hospitalizations (i.e., Schamess, Edwards, Chang, Mattke, or Kangovi et al.) and wish to add cost savings related to reduced ED use, enter in participants' baseline ED visit rate, ED visit cost, and the estimated reduction in ED visits as a result of your program.

patient/year		% Decrease in ED visits	
Average cost/ED visit			
Total ED visits before reduction	-	Total ED visits after reduction	-
Total ED costs before reduction	-	Total ED costs after reduction	$0
		Total ED Savings	$0

(10) Shared savings

Offsets forwarded from previous tabs. If you wish to enter your own values, please do so in row 23 on the HBPC offsets tab and/or row 6 on the Paramed offsets tab and select "Use" from the dropdown menu in column A.

HBPC & care transition offsets/patient from HBPC offsets tab	$1,000	**Total HBPC offsets**	$500,000
Paramed offsets/patient from Paramed offsets tab	$550	**Total paramed offsets**	$275,000
		Total estimated savings	$775,000

Enter in the % of savings expected to be shared between the ACO and the payer based on the ACO's contract.

Shared savings %	50%
How likely are you to achieve shared savings this year?	52%
Expected shared savings %	26%
Total expected shared savings	$201,500

We include a place to add information on your shared savings rate with CMS and the probability of earning savings in any given year

Big Picture

Strengths

- ROI calculation based on existing information
- Cost benefit analysis for broader view of the program model impact
- Tool can be used to help determine the number of benes/month to ‘break even’
- Can also uses tool for planning, such as changes to the core model or adding new sites
- Adding ACO savings as an optional input

Weaknesses

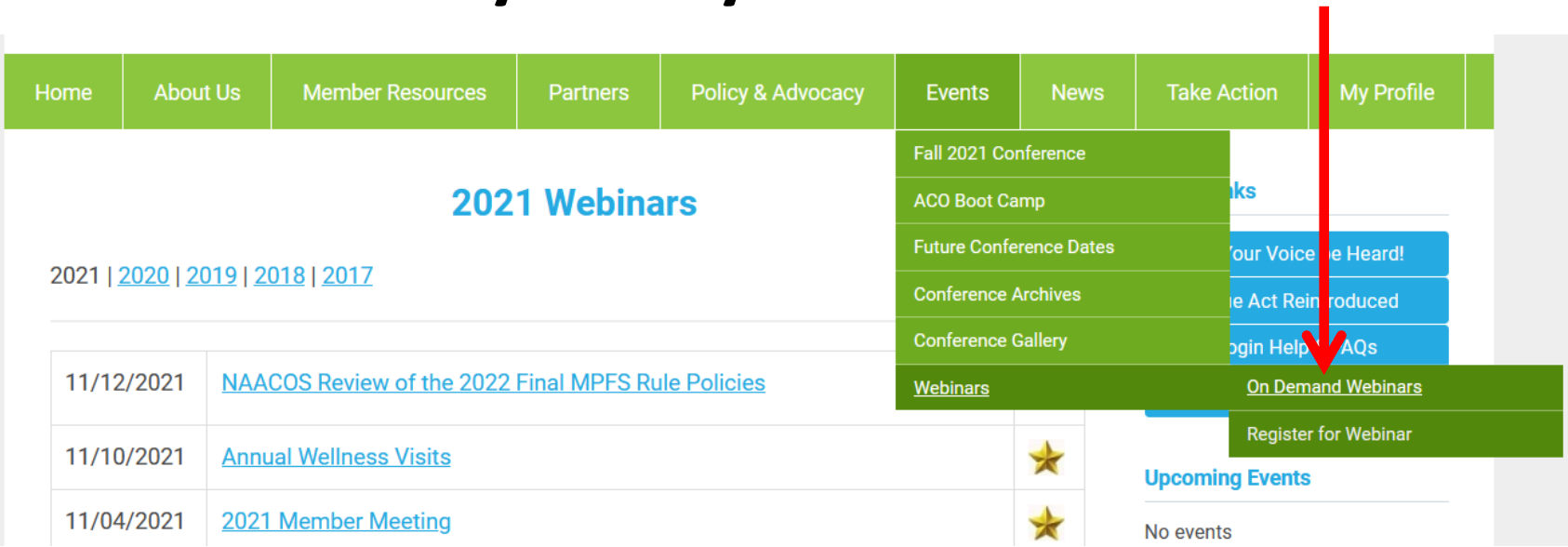
- Hard to draw definitive conclusions early in the project lifecycle
- Indirect use of external comparison group through funded studies versus direct evaluation study with your own program and system
- Hard to account for other care redesign activities taking place at the same time.

Questions Submitted in Advance

- Can you explain the difference between the MIH program and the CMS Emergency Triage, Treat, and Transport (ET3) Model?
- Can you bill for any of the MIH services from payors?
- How to you get Sr. leadership to budget for the program?
  - Did you apply for any grants or partnership funding to support the position? If not, what is the payment support structure?

Other Topics

- **To continue today's discussion, we encourage use of our Executive Listserv for additional questions or suggestion on this or other topics of interest.**
- **The recording and slides will be posted on the Events tab on the website in a few days. They can be found here.**



Thank you!