

October 2017

THE JOURNEY TOWARD POPULATION HEALTH

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CHILDREN'S HOSPITAL OF PHILADELPHIA TODAY



**29,000+ Hospital
Admissions**



**1.2 Million
Outpatient Visits**



537 Beds



14,000+ Employees



**500,000 Children
Visit Facilities**



**250,000+ Children
CARE Network**

OVERVIEW



**Where Did
We Start?**

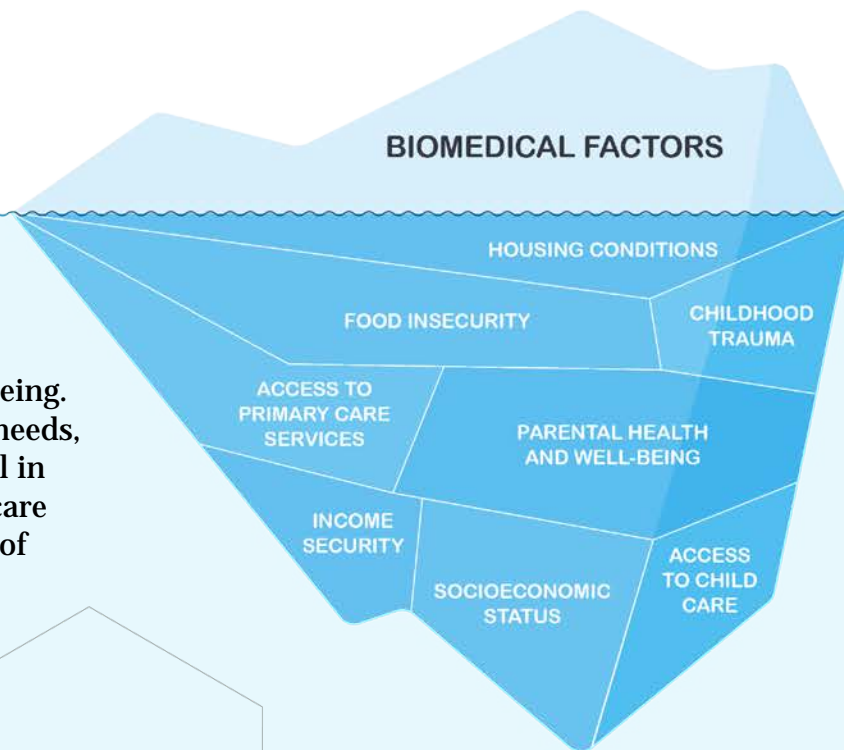
**The Steps of
Population Health**

**Finding Alignment
with Institutional
Goals**

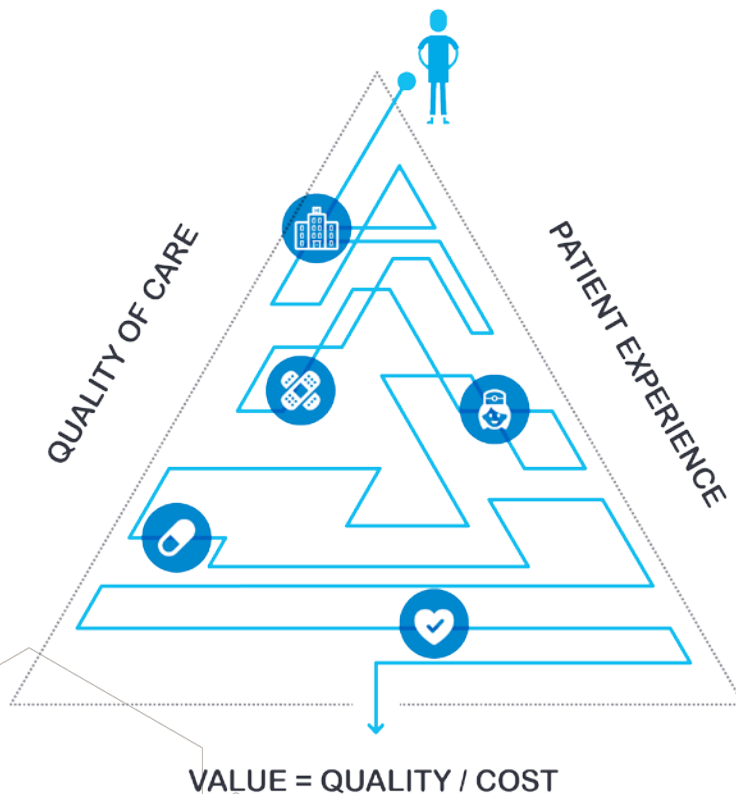
THE JOURNEY TOWARD POPULATION HEALTH

BIOMEDICAL FACTORS ARE JUST THE TIP OF THE ICEBERG

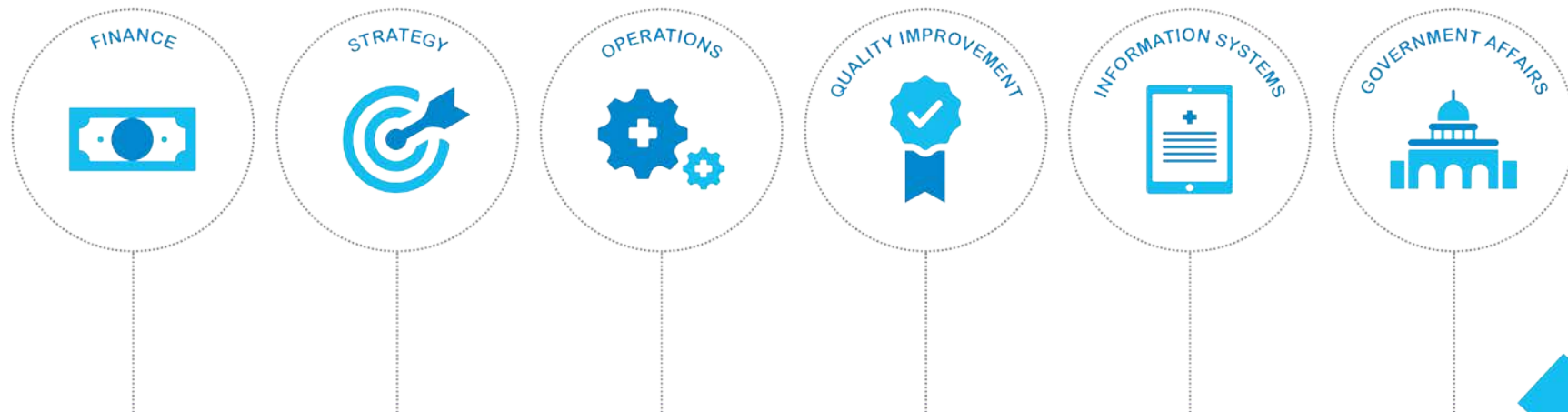
Psychosocial and economic stressors significantly affect childhood health and well-being. However, addressing these needs, which are often non-medical in nature, is outside of health care providers' traditional scope of practice.



OUR PATIENTS ARE NOW NAVIGATING A MORE COMPLEX MAZE

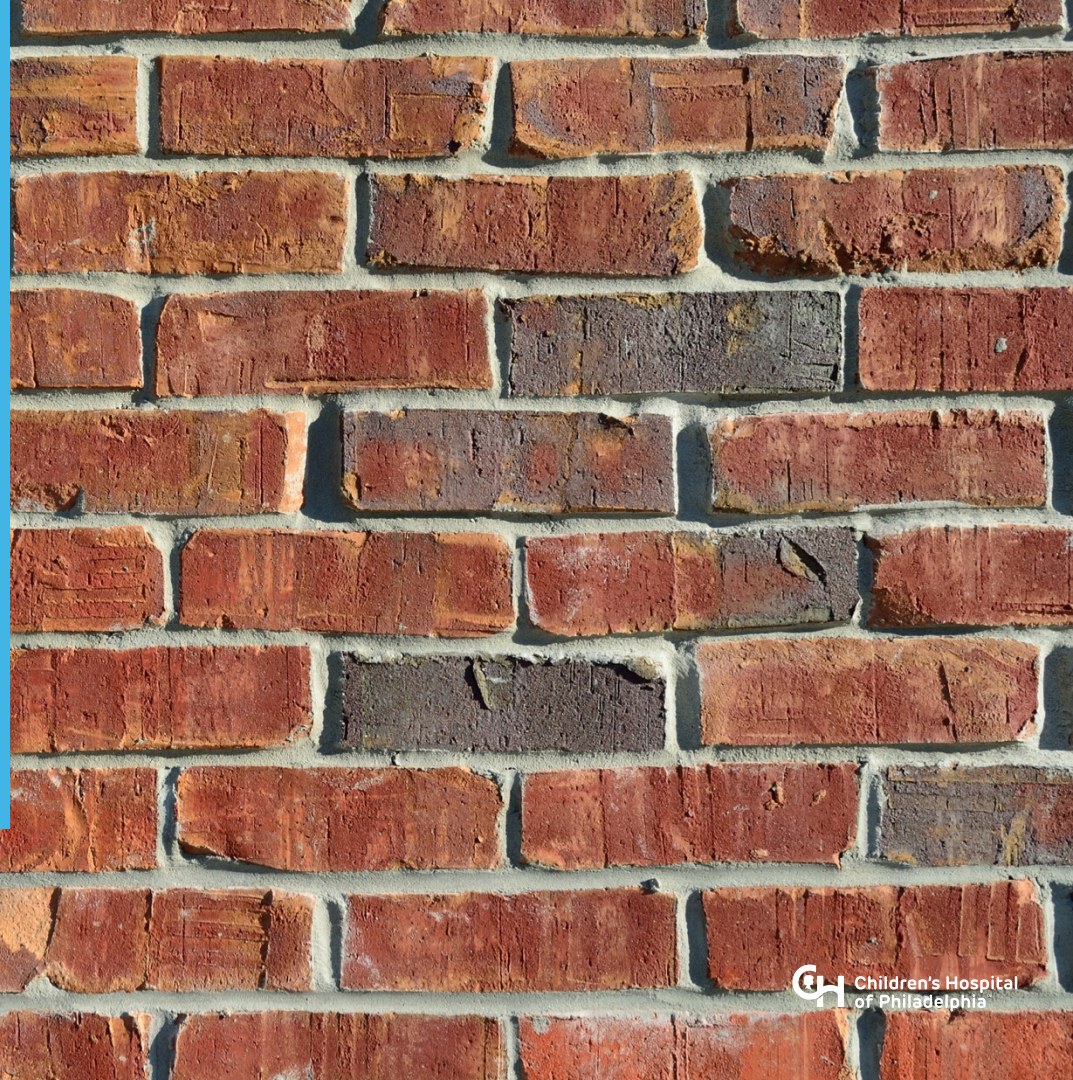


WHO OWNS POPULATION HEALTH?



WHERE DOES POPULATION HEALTH RESIDE IN A HEALTH SYSTEM?

So we met some
resistance...



So we met some
resistance...

But also a little daylight



How did we find daylight?

- Grants and innovation
- Technologic advances
- Market changes
- People bold enough to take a chance
- Talented colleagues with great ideas
- Pressure to improve, and prove it



CHOP NOW HAS A VIBRANT POPULATION HEALTH PROGRAM

- Early adopter of Healthy Planet in Epic
- National leader in developing care coordination interventions
- Implemented the first commercial pediatric accountable care organization (ACO)
- Negotiating contracts with Medicaid payers for care management (i.e. Keystone Karabots Care, K2C, CAPP Program)
- Data driven approach focused on improvement and outcomes



OVERVIEW

**Where Did
We Start?**

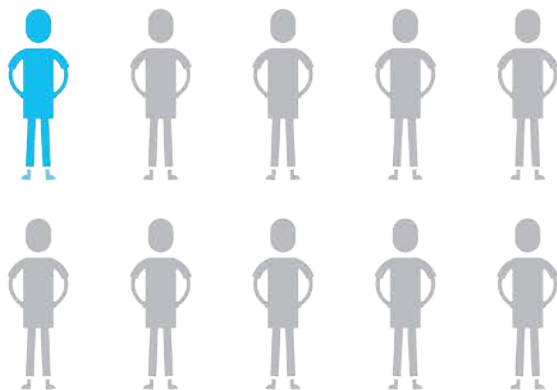


**The Steps of
Population Health**

**Finding Alignment
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THE JOURNEY TOWARD POPULATION HEALTH

STEP ONE: UNDERSTANDING YOUR POPULATION



Children with complex
chronic conditions represent
about **7%** of all children...

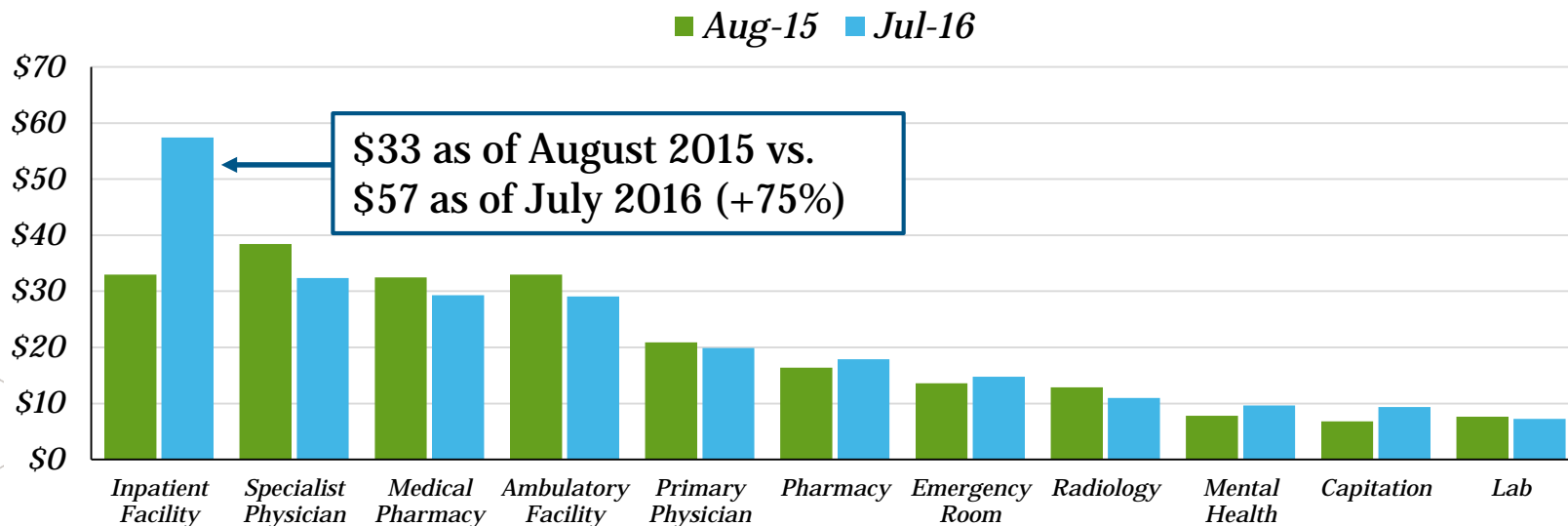


...But are responsible for
40% of all pediatric costs.

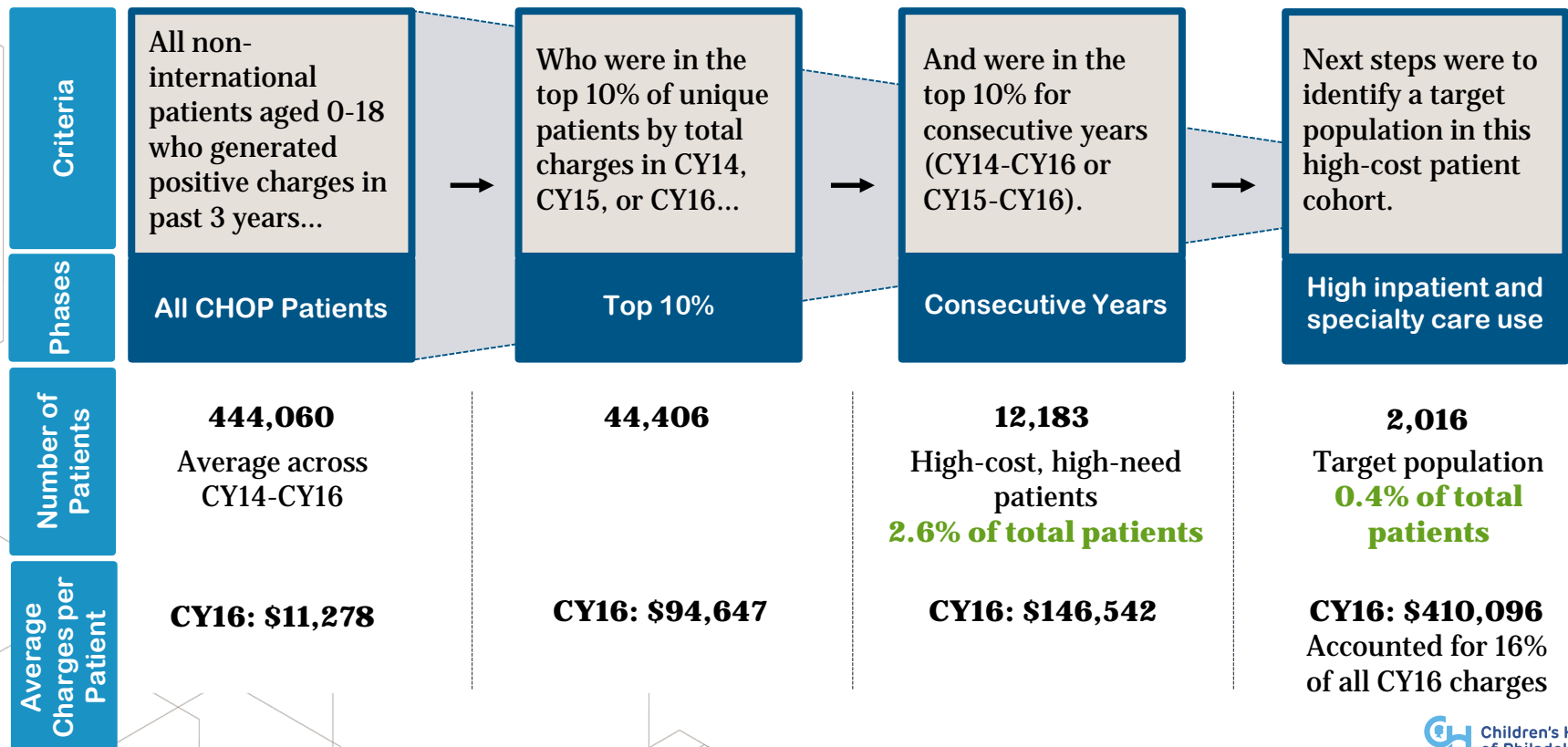
PREVENTABLE HOSPITAL DAYS ARE THE PRIMARY DRIVER

High inpatient payments have been the main driver of the rise in PMPM payments, many of which may have been preventable.

Annual Rolling Average of PMPM Payments – August 2015 vs. July 2016



STEP TWO: STRATIFYING YOUR POPULATION



DESCRIBING THE TARGET POPULATION

Comorbidity

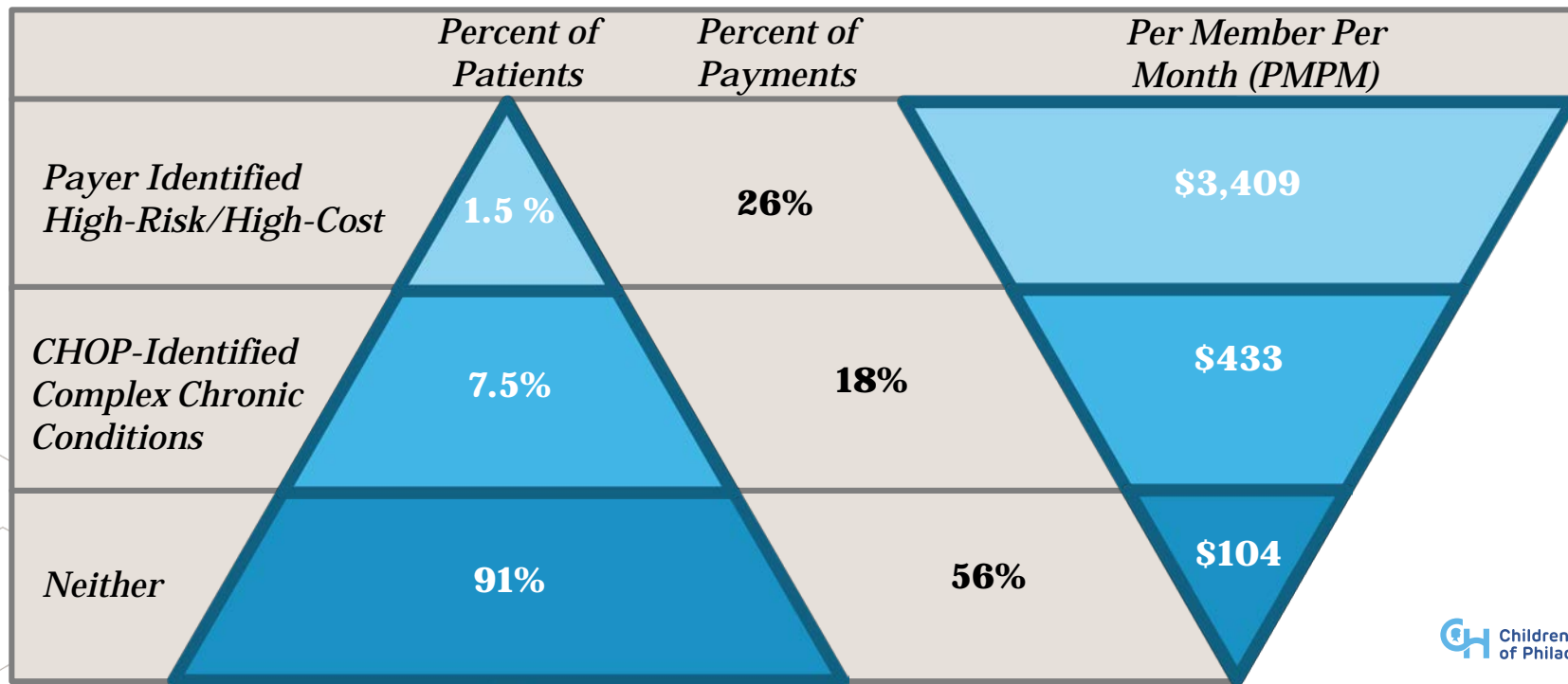
High Inpatient/Specialty Care (2,016)

Number of Patients

Percent of Patients

OUR PAYERS ARE FINDING THE SAME KIDS

A minority of children in the ACO account for **almost half** of the per member per month (PMPM) spending.



STEP THREE: ENGAGING YOUR PATIENTS



DELIVERING TOOLS TO THE POINT OF CARE

| MRN | Patient | DOB | Age | Sex | PCP | Care Coord Risk Score | Last Outreach | Outreach Outcome | Next Pt Outreach | Next PCP Appt | Next Well Visit | Flu Vaccine Given/Exclusion | ED/UC Visits (1yr) | Hospitalizations (1yr) | PCP Vis |
|-----|---------|-----|--------------|--------|--------|-----------------------|---------------|----------------------|------------------|---------------|-----------------|-----------------------------|--------------------|------------------------|---------|
| | | | 16 year old | Male | | 1 | 09/12/2017 | Telephone: Completed | Not Specified | 12/07/2017 | 12/07/2017 | | 1 | 1 | 2 |
| | | | 12 year old | Female | | 6 | 09/15/2017 | Telephone: Completed | 09/18/2017 | 11/29/2017 | 11/29/2017 | | 6 | 2 | 6 |
| | | | 10 year old | Female | ID | 3 | | | Not Specified | | | | 1 | 0 | 0 |
| | | | 13 year old | Male | | 3 | | | Not Specified | 12/08/2017 | 12/08/2017 | | 0 | 1 | 5 |
| | | | 10 year old | Male | | 2 | 09/08/2017 | Mail | Not Specified | | | | 0 | 0 | 2 |
| | | | 15 year old | Female | N, MD | 1 | 09/22/2017 | Telephone: Completed | Not Specified | 09/25/2017 | 09/25/2017 | | 0 | 0 | 3 |
| | | | 4 year old | Male | ID | 5 | 09/08/2017 | In Person | 06/08/2017 | | | GIVEN | 0 | 2 | 0 |
| | | | 4 year old | Female | | 4 | 09/11/2017 | Telephone: Completed | Not Specified | | | | 1 | 3 | 3 |
| | | | 34 month old | Female | ID | 2 | 09/18/2017 | Telephone | 10/03/2017 | 11/16/2017 | 11/16/2017 | | 0 | 0 | 1 |
| | | | 15 year old | Female | ry, MD | 5 | 05/19/2017 | Telephone: Completed | 05/22/2017 | 10/05/2017 | 10/05/2017 | | 4 | 0 | 6 |
| | | | 9 year old | Female | M, | 0 | 09/13/2017 | Telephone | 09/26/2017 | 09/26/2017 | 09/26/2017 | | 0 | 0 | 6 |
| | | | 7 year old | Male | | 1 | 07/26/2017 | Telephone: Completed | 06/17/2016 | 09/28/2017 | 09/28/2017 | | 1 | 1 | 5 |
| | | | 5 year old | Male | ID | 4 | 09/12/2017 | Telephone: Completed | Not Specified | 10/18/2017 | 10/18/2017 | | 2 | 1 | 0 |
| | | | 13 year old | Male | ID | 2 | 07/06/2017 | Contact not needed | Not Specified | | | | 0 | 0 | 2 |

Navigation: Snapshot | Plan of Care | Registries | Upcoming Visits | Care Coord Flowsheets | Recent Outreach Encounters

Patient Care Coordination Note %

RN 5/30/2017 3:37 PM

Primary Care Coordination Involved:
Karabots Pediatric Care Center (K2C)
4865 Market Street
Philadelphia, PA 19145

Specialty Care Coordination Involved:
- See Letter dated 4/19/17, from Endocrine, for latest summary and treatment

Current Problems %

| | |
|--|------------|
| History of medulloblastoma | Noted |
| Overview | 10/13/2015 |
| S/P gross total resection. Followed by survivorship clinic | |
| VP (ventriculoperitoneal) shunt status | 10/13/2015 |
| Cognitive developmental delay | 2/17/2016 |
| Ataxia of both legs | 5/9/2016 |
| Dysarthria | 5/9/2016 |
| Bilateral congenital hearing loss | 10/5/2016 |

Coordination Note Tips

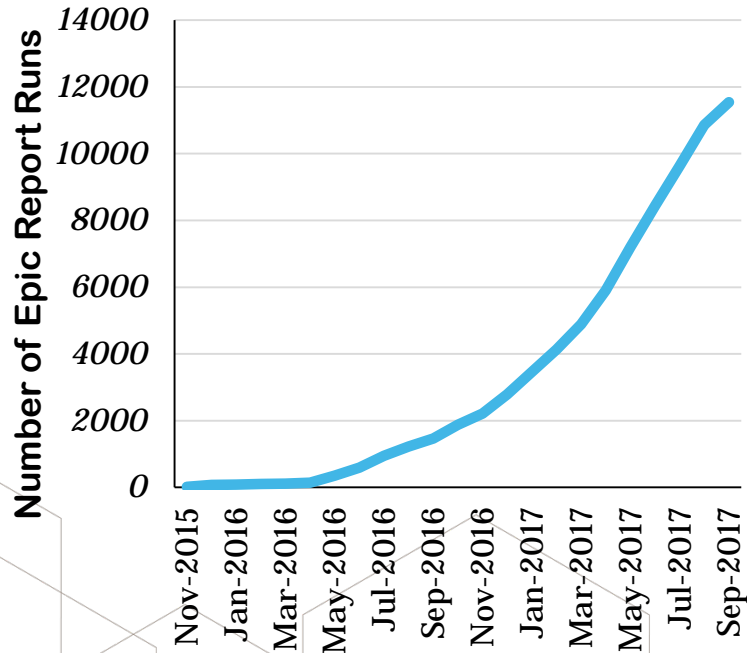
The **NEW** Patient Care Coordination Note below should be a **brief** summary of high-level patient issues. Examples could include:

| | |
|---|---|
| Communication & Coordination | Complex care notes, consent/custodianship issues, refer to important letters or chart content |
| Admission | Preferred service, location or |

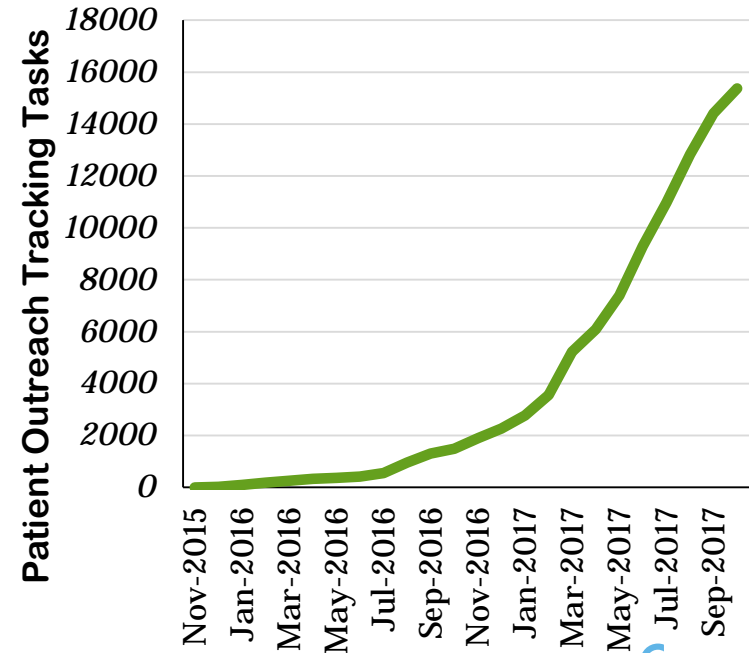
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CARE TOOLS PROVIDE VALUE TO INTEGRATED TEAMS

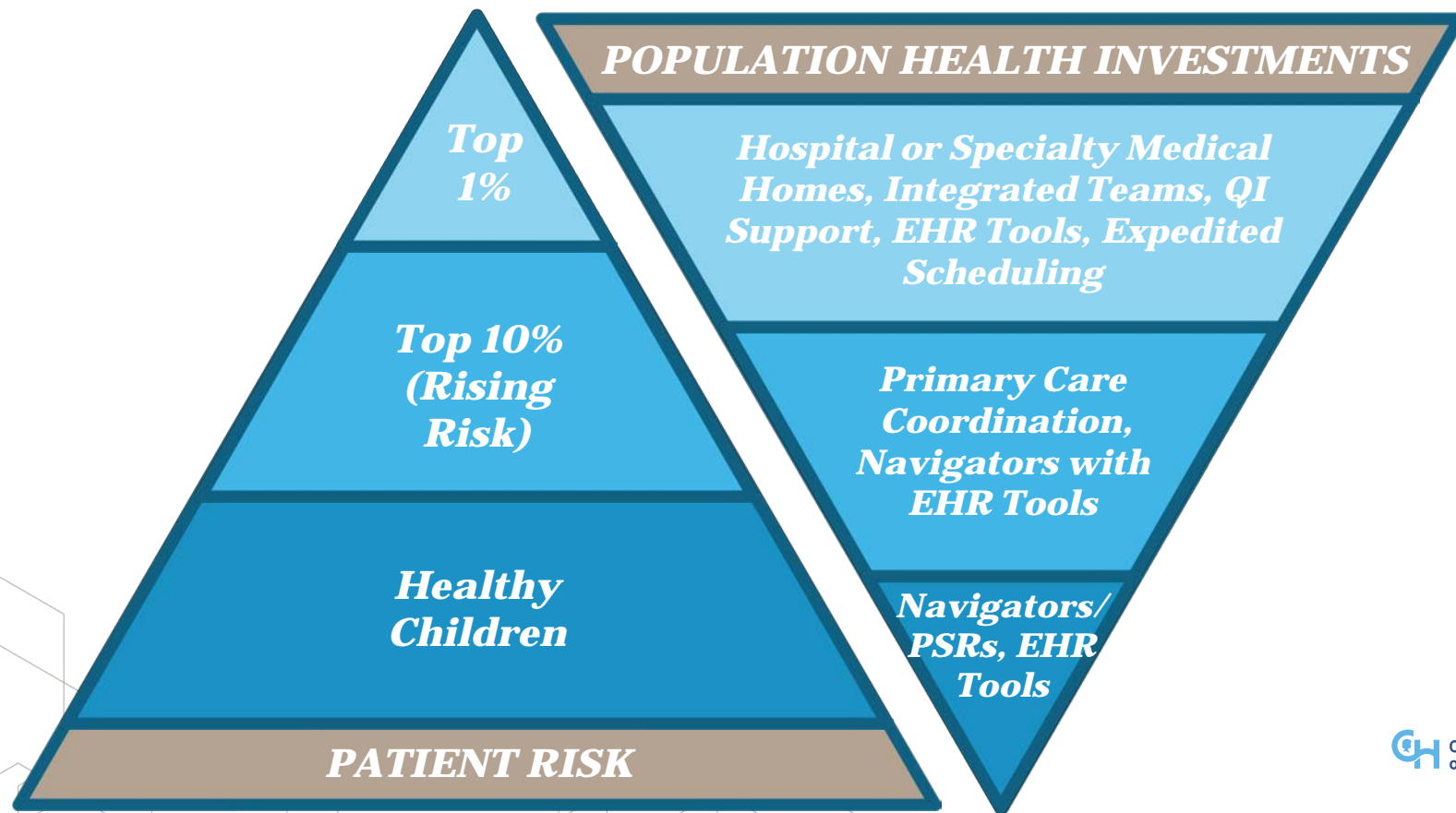
Runs of EHR Patient Management Reports Over Time



Use of EHR Patient Outreach Tracking Tools Over Time



STEP FOUR: DEVELOPING YOUR INTERVENTIONS



DELIVERING THE INTERVENTIONS: CASE EXAMPLES

1. **Compass Care**
2. **Coordinating All Resources Effectively (CARE) Award**
3. **Asthma Population Health Workgroup**



COMPASS CARE

Integrates an **interdisciplinary** team for complex medicine and care coordination

Proactively identifies children in need of both services

Provides **intensive patient engagement** across the care continuum

Focuses on **quality improvement** and outcomes

CHOP Children's Hospital of Philadelphia

Menu

CHOP Compass Care Program

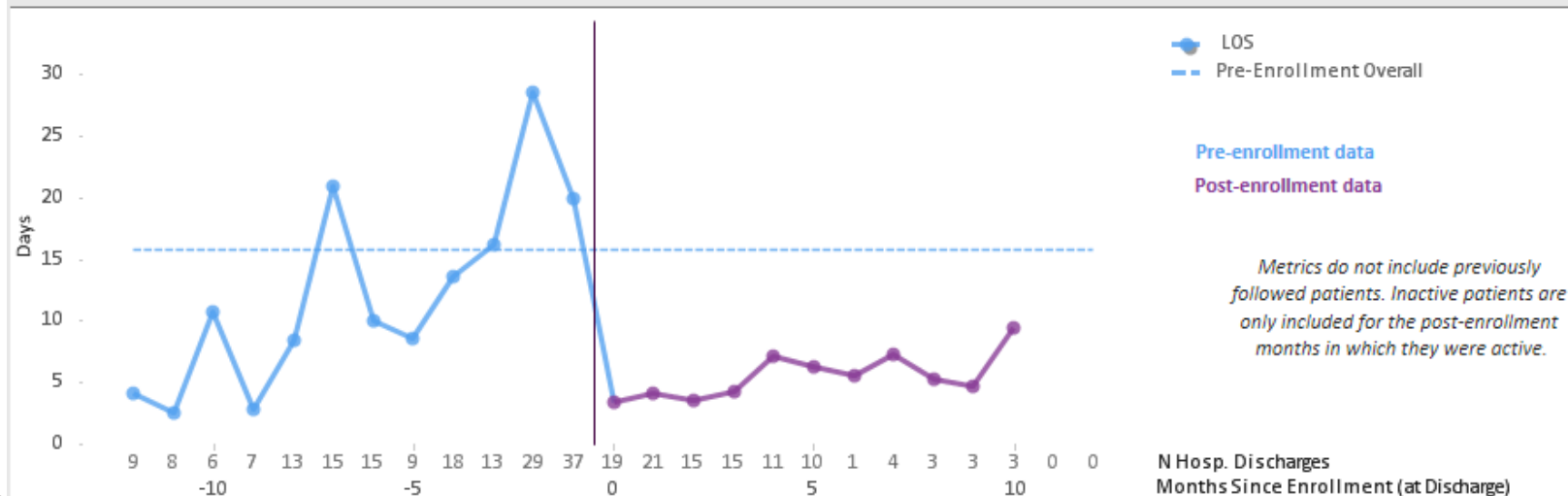
CONTACT US
CHOP COMPASS CARE PROGRAM

Contact Us
215-590-8718

Coordinating care for children with complex medical needs can be very difficult. Medically complex patients see their primary care physicians and subspecialists more frequently, visit the emergency department more often, and often require more medications. Many of these patients are also hospitalized at least once each year.

STEP FIVE: BEING RESPONSIVE TO IMPROVEMENT AND OUTCOMES

Average LOS for Hospital Admissions (By Discharge Date)



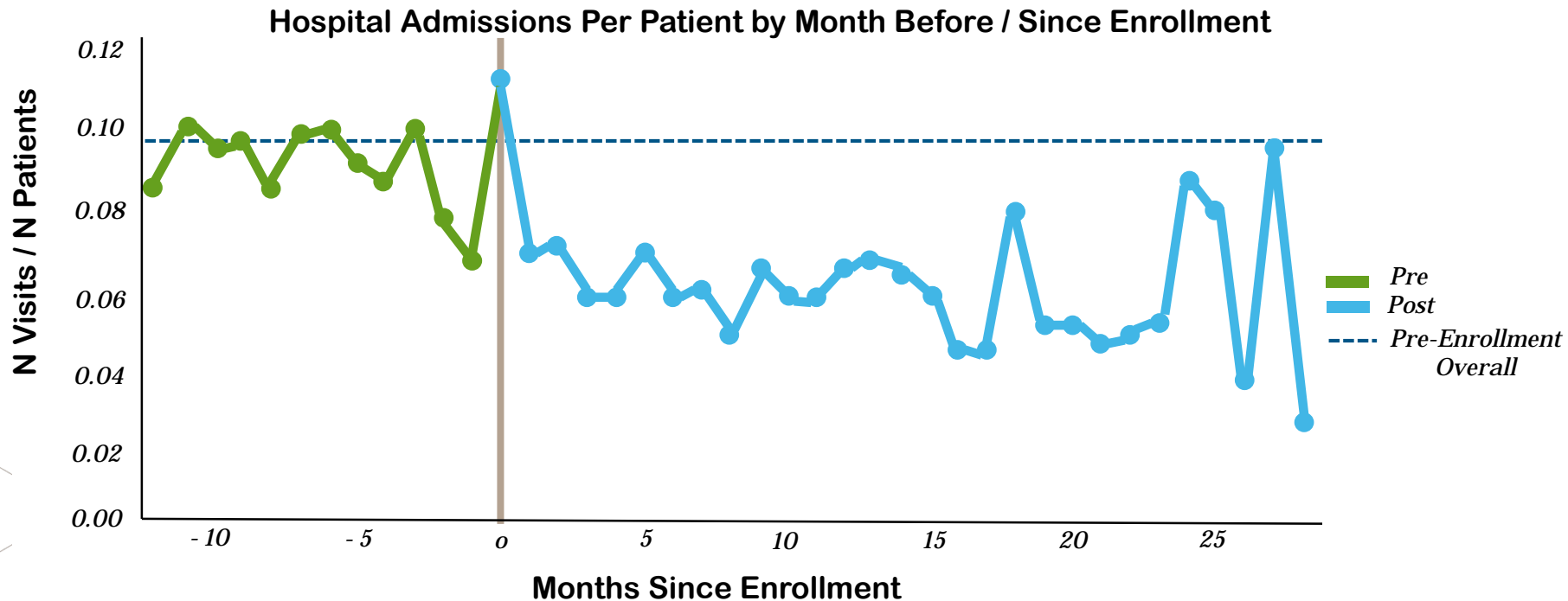
COORDINATING ALL RESOURCES EFFECTIVELY (CARE) AWARD

For 700+ medically complex children in six of our pioneer primary care practices:

- Better tools for engagement (Healthy Planet)
- Compass Care for the most challenging patients
- Regional care coordination for hospital to home
- Better tools for engagement in the medical home
- Shared learning across the care continuum
- Strengthened relationship with our largest Medicaid payer

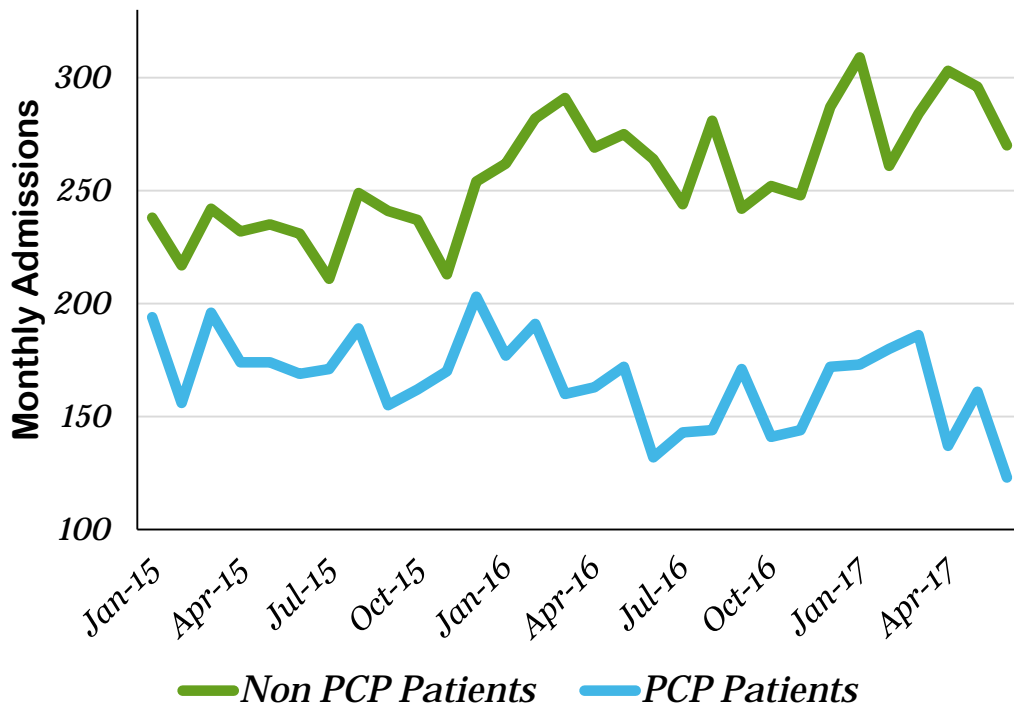


CARE AWARD REDUCED ADMISSIONS FOR KIDS IN THE PROGRAM



CARE AWARD HAS IMPACTED HOSPITAL ADMISSIONS

Children with Complex Conditions Monthly Admissions, January 2015 – June 2017



Reductions in admissions for 700+ medically complex children at CHOP primary care practices led to appreciable reductions at the hospital level.

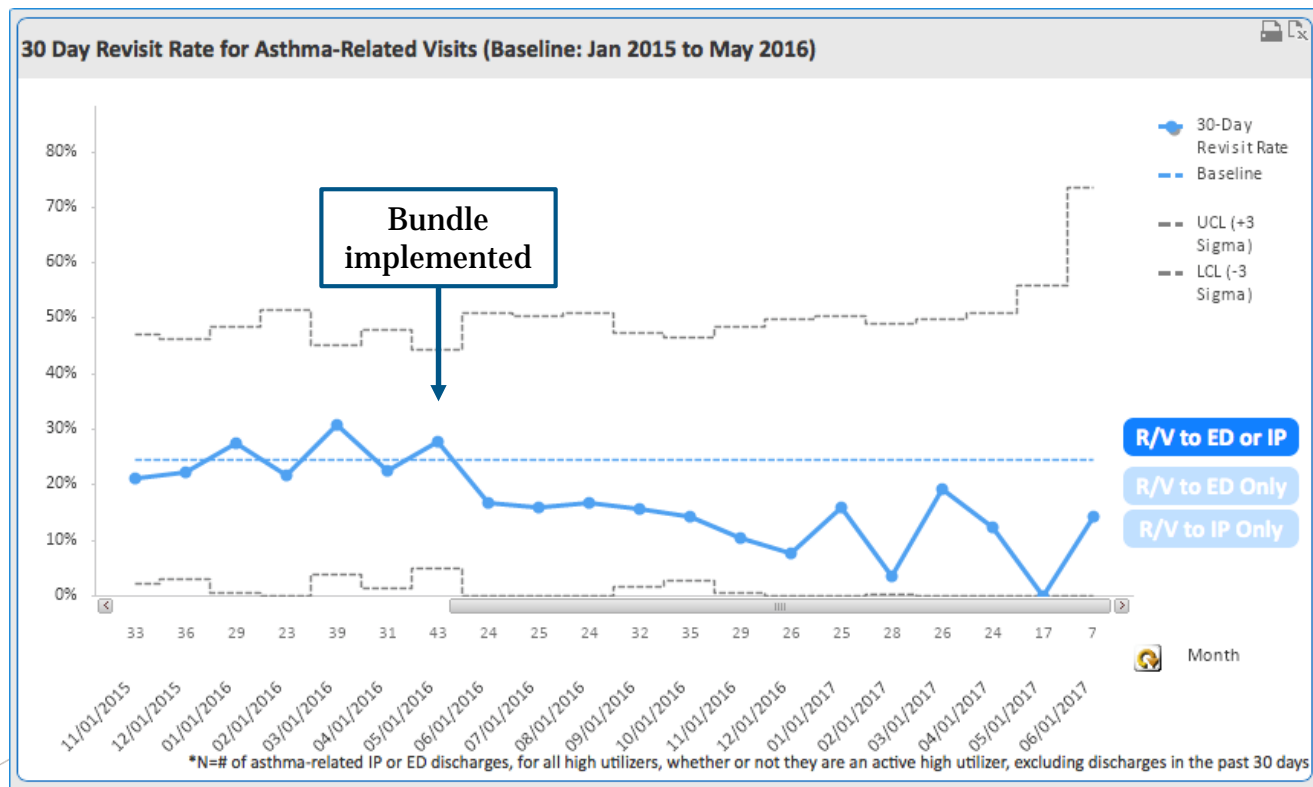
ASTHMA POPULATION HEALTH WORKGROUP

An integrated team targeting the leading cause of readmissions at CHOP

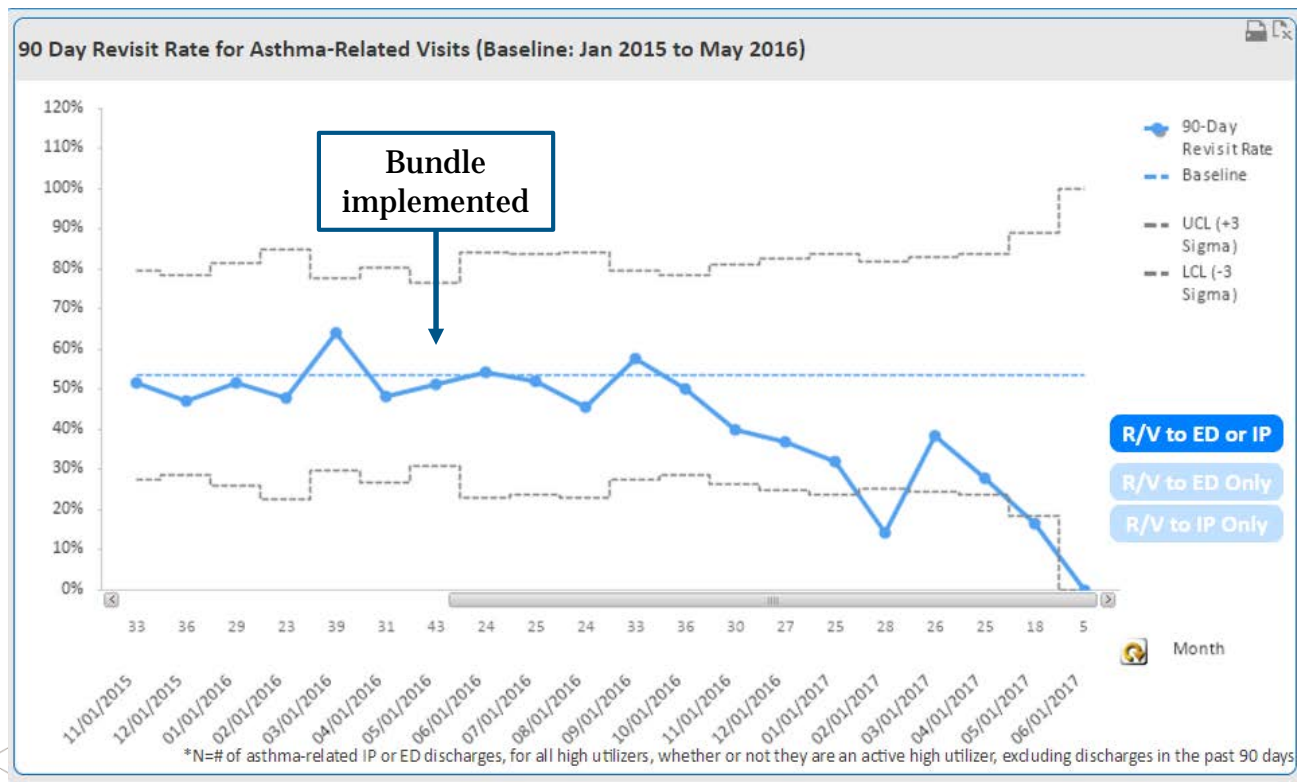
- QI methods to identify drivers of revisits and test a high-utilizer bundle
- Standardized risk screening and tailored inpatient education
- Direct filling of discharge prescriptions
- Referral to a specialty allergy or pulmonary clinic
- Referral to the Community Asthma Prevention Program (CAPP)



OUR ASTHMA PROGRAM IS REDUCING 30-DAY READMISSIONS

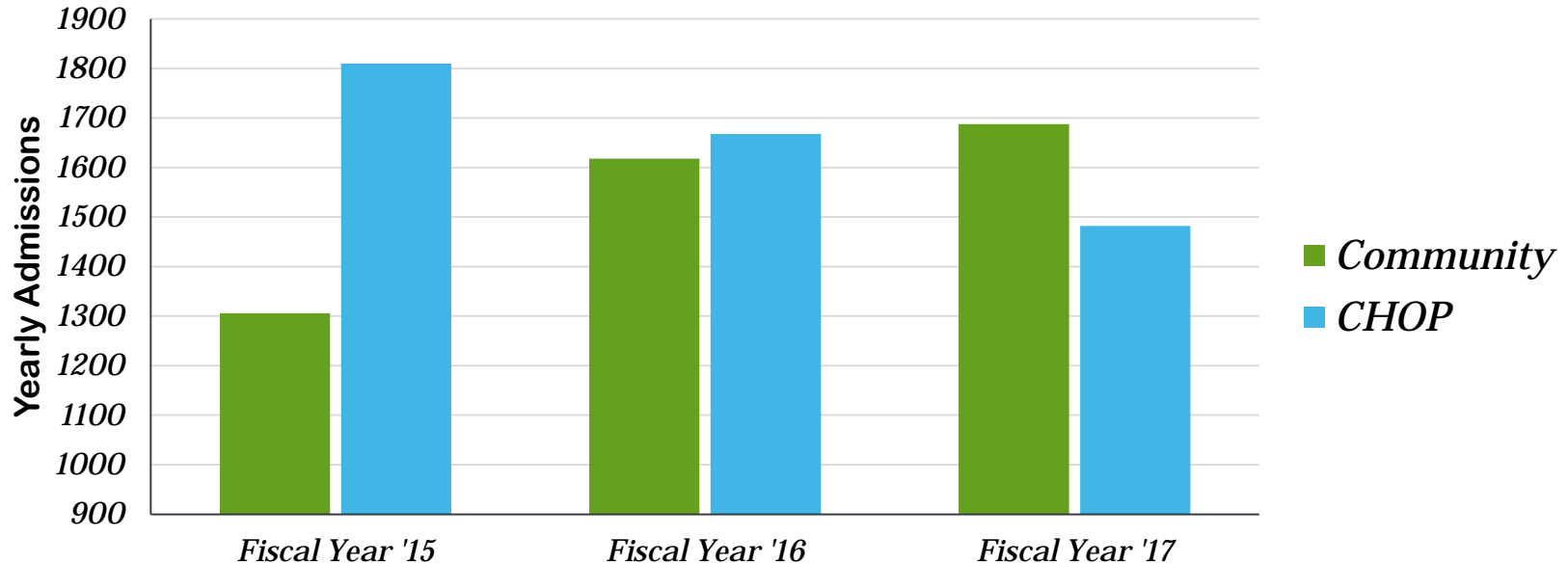


OUR ASTHMA PROGRAM IS REDUCING 90-DAY READMISSIONS



WE SURPASSED COMMUNITY PRACTICES IN REDUCING ADMISSIONS

Annual Asthma Medicaid Admissions by Source of Primary Care Provider



OVERVIEW

**Where Did
We Start?**

**The Steps of
Population Health**

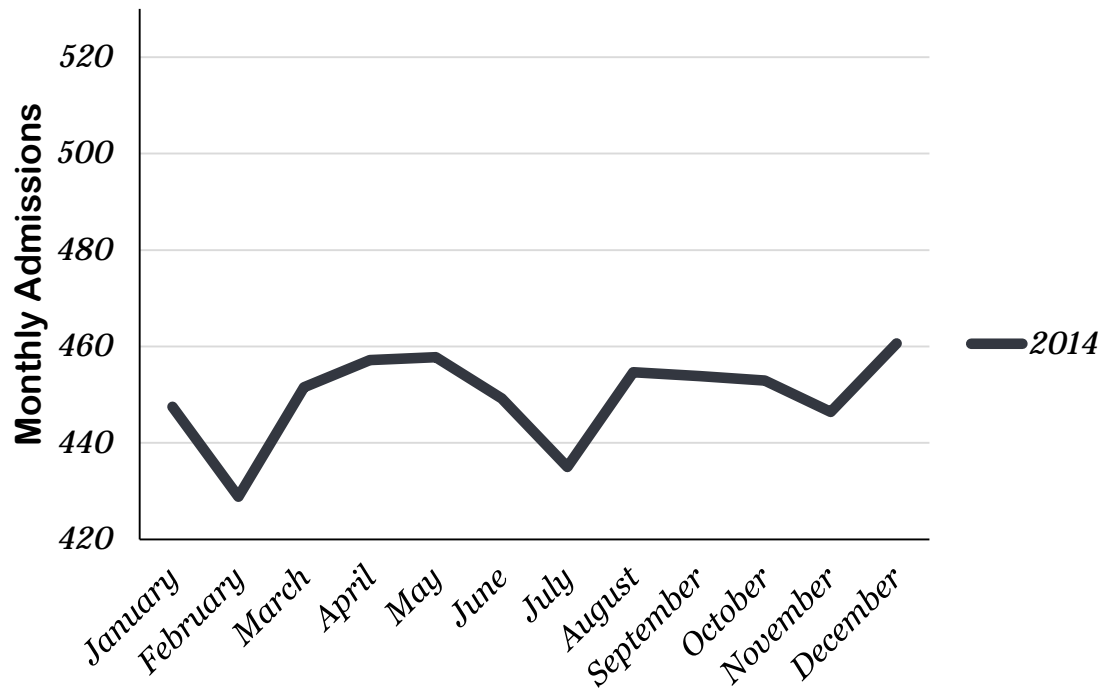


**Finding Alignment
with Institutional
Goals**

THE JOURNEY TOWARD POPULATION HEALTH

MARKET OUTREACH CREATES CAPACITY CHALLENGES...

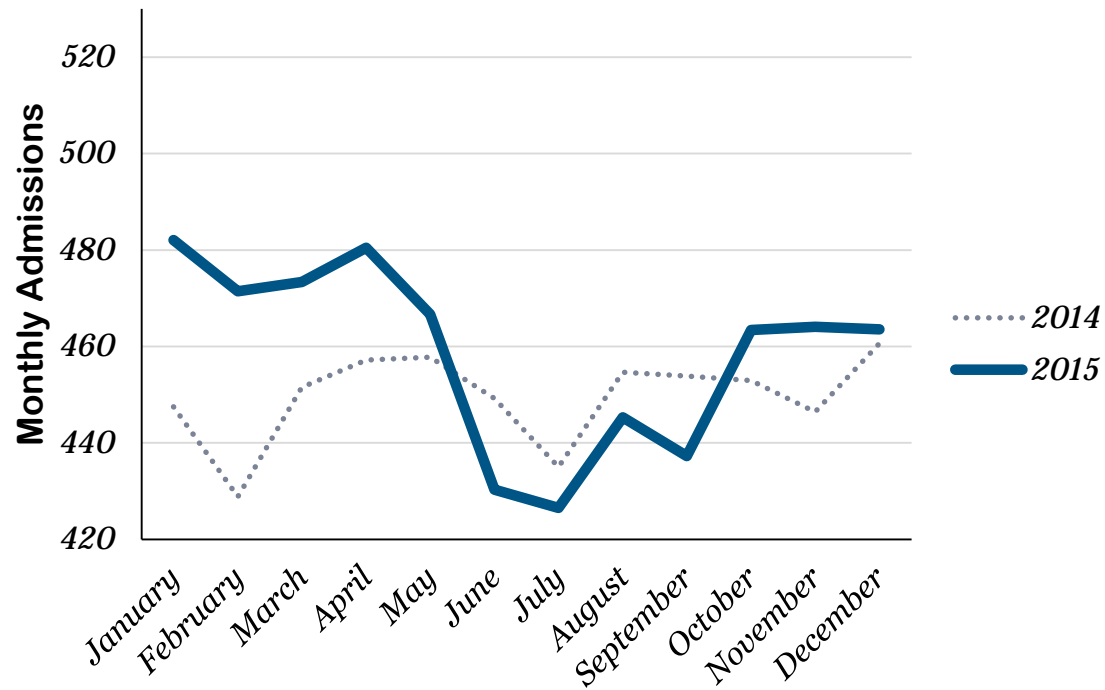
CHOP Peak Inpatient Census



CHOP peak inpatient census **increased** from 2014 to 2017

MARKET OUTREACH CREATES CAPACITY CHALLENGES...

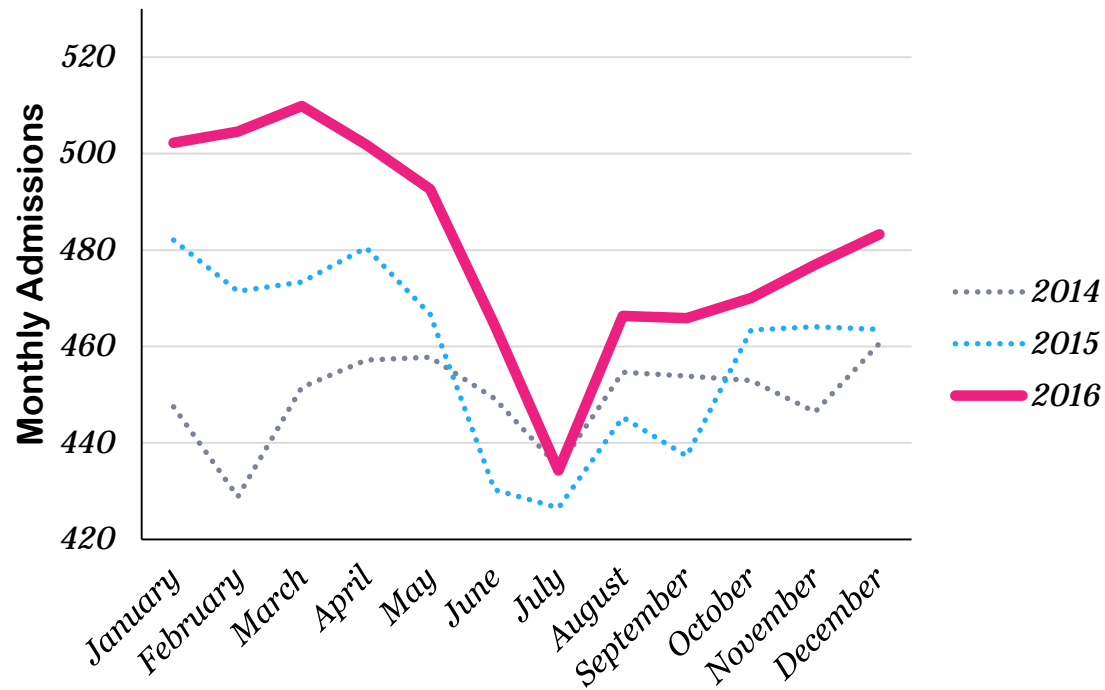
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MARKET OUTREACH CREATES CAPACITY CHALLENGES...

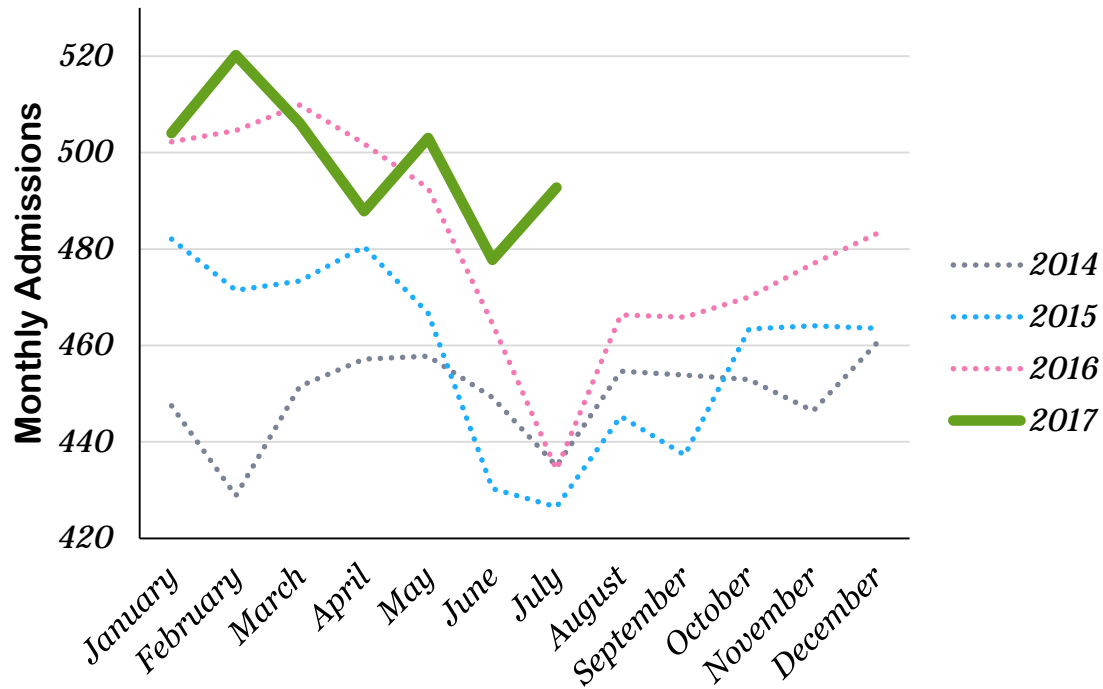
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MARKET OUTREACH CREATES CAPACITY CHALLENGES...

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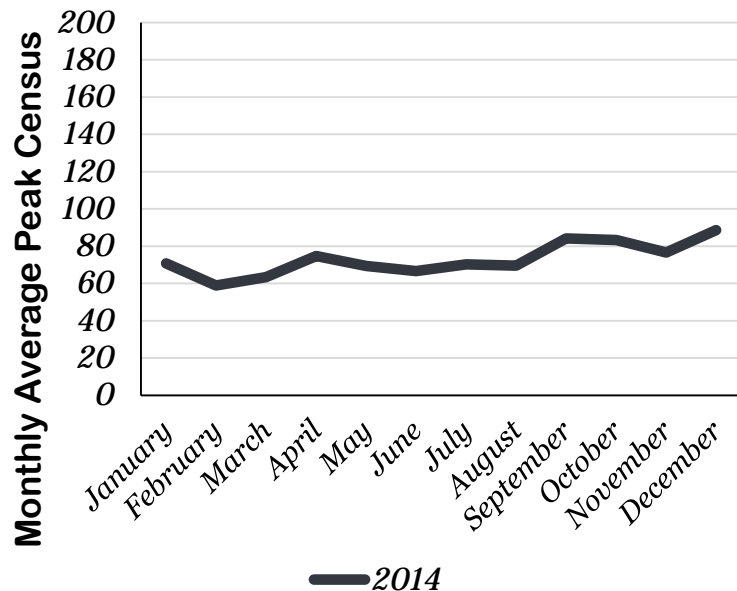


CHOP peak inpatient census **increased** from 2014 to 2017

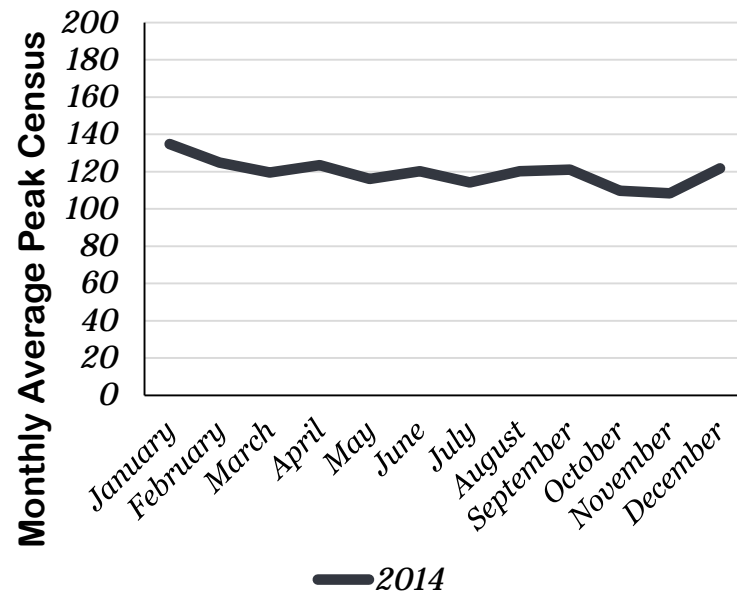
- Medicaid admissions are the largest contributor to this increase

...WHILE OUR PRACTICES ARE REDUCING MEDICAID ADMISSIONS

CHOP Primary Care Medicaid Patients

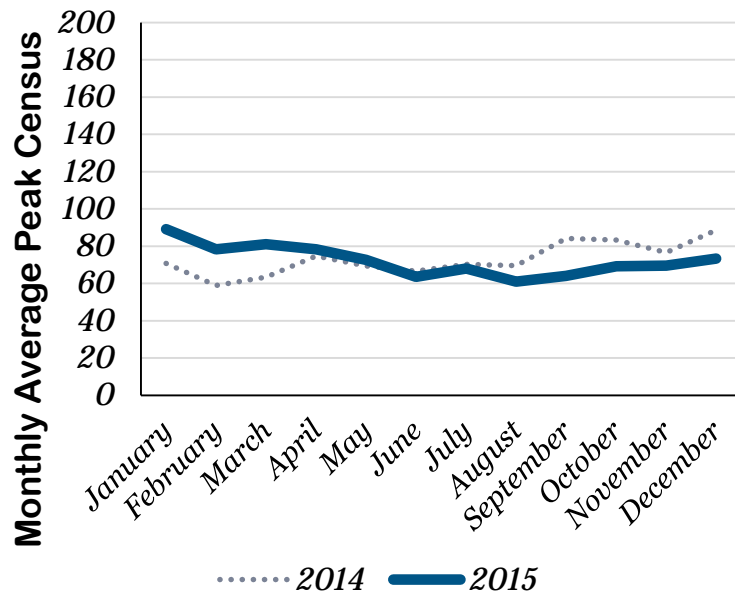


Community Practice Medicaid Patients

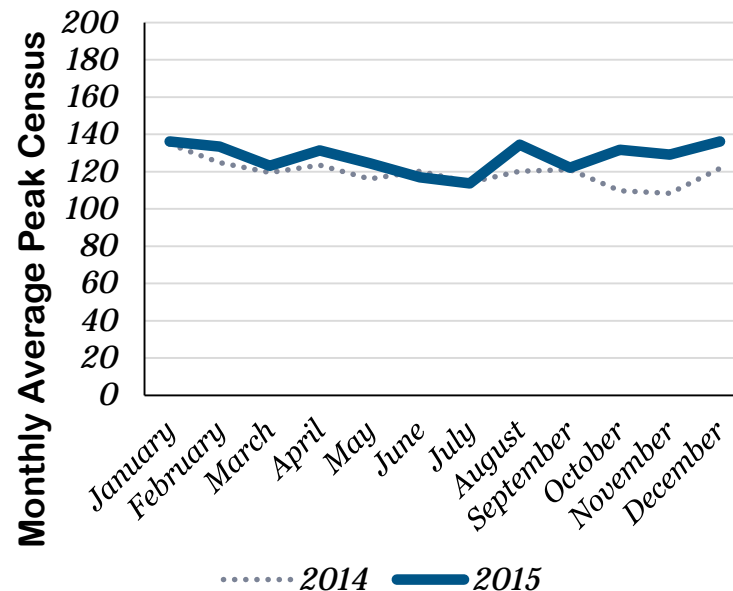


...WHILE OUR PRACTICES ARE REDUCING MEDICAID ADMISSIONS

CHOP Primary Care Medicaid Patients

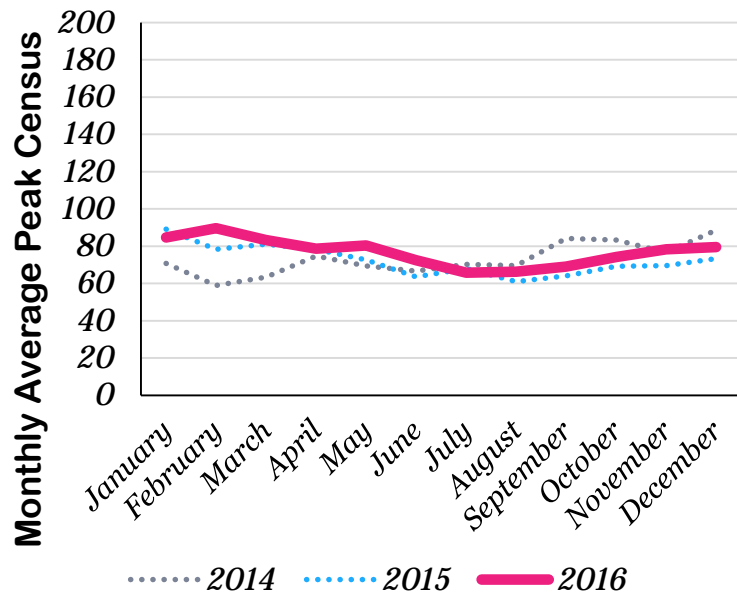


Community Practice Medicaid Patients

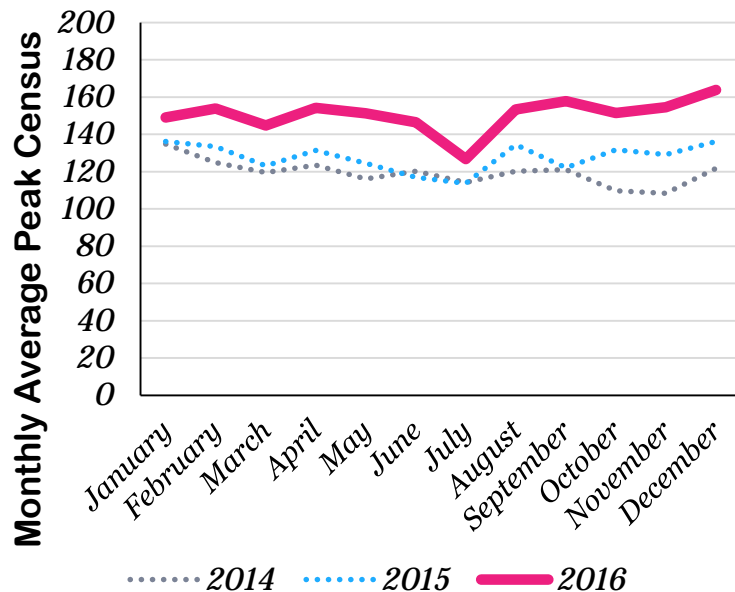


...WHILE OUR PRACTICES ARE REDUCING MEDICAID ADMISSIONS

CHOP Primary Care Medicaid Patients

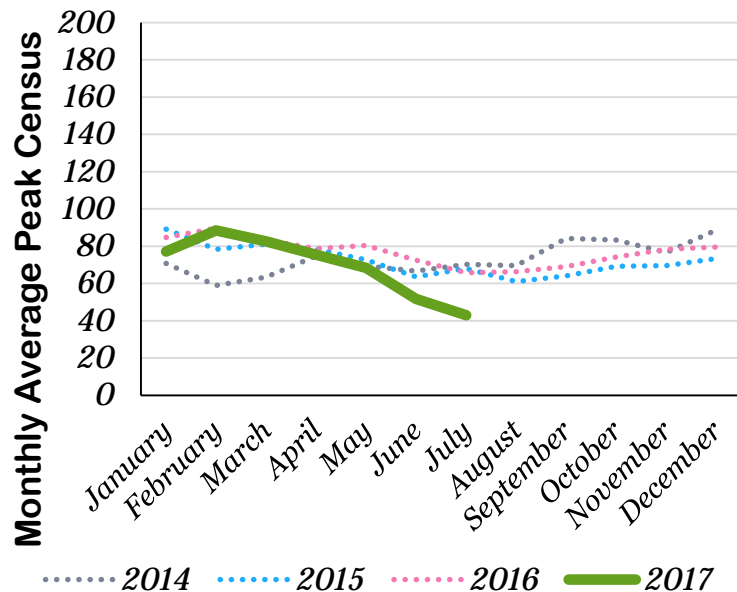


Community Practice Medicaid Patients

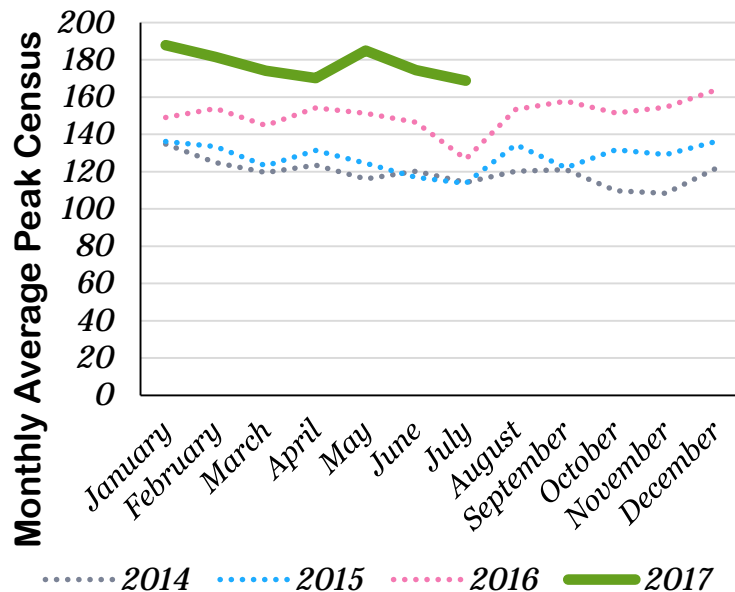


...WHILE OUR PRACTICES ARE REDUCING MEDICAID ADMISSIONS

CHOP Primary Care Medicaid Patients



Community Practice Medicaid Patients



SCALING A SYSTEM OF CARE



SCALING A SYSTEM OF CARE





Looking to the next frontier

- Focusing our strategies beyond our hospital walls
- Engaging in our communities through neighborhood-specific strategies
- Utilizing Community Benefit investments to improve population health

Skepticism can be a healthy pressure to succeed in population health...

...**but** have the confidence that the wind is at your back and that with the right systematic approach, real outcomes can be achieved.





QUESTIONS AND COMMENTS?



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