



MASSACHUSETTS
HEALTH POLICY COMMISSION

The Health Policy Commission: Investments in Substance Use Disorder Treatment

Kathleen Connolly, MSW, LICSW
Director, Strategic Investment

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Disclosures

[From all faculty, course directors, planning committee, others]

The following individuals have a relevant financial relationship with a commercial interest(s):

Role	Name	Proprietary Entity	Nature of Financial Relationship
	none		

The following individuals have no relevant financial relationship to report in the last 12 months with a commercial interest:

Name: Kathleen Connolly	
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AGENDA

- **Background on the Health Policy Commission**
- Data on Substance Use Disorder (SUD) in Massachusetts
- The HPC's Investments in SUD Treatment

Chapter 224 of the Acts of 2012 established the HPC and a target for reducing health care spending growth in Massachusetts.

Chapter 224 of the Acts of 2012

An Act **Improving the Quality** of Health Care and **Reducing Costs** through Increased **Transparency, Efficiency, and Innovation.**



GOAL

Reduce total health care spending growth to meet the **Health Care Cost Growth Benchmark**, which is set by the HPC and tied to the state's overall economic growth.

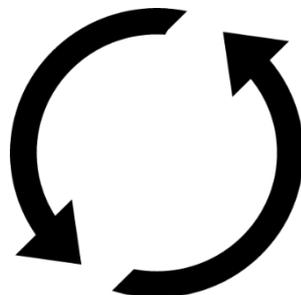


VISION

A **transparent** and **innovative** healthcare system that is **accountable** for producing **better health** and **better care** at a **lower cost** for the people of the Commonwealth.

The HPC promotes two priority policy outcomes that contribute to reducing health care spending, improving quality, and enhancing access to care.

**Strengthen market functioning
and system transparency**



The two policy priorities
reinforce each other toward
the ultimate goal of reducing
spending growth

**Promoting an efficient, high-
quality delivery system with
aligned incentives**

The HPC employs four core strategies to advance its mission.

RESEARCH AND REPORT
INVESTIGATE, ANALYZE, AND REPORT
TRENDS AND INSIGHTS



CONVENE

BRING TOGETHER STAKEHOLDER
COMMUNITY TO INFLUENCE THEIR
ACTIONS ON A TOPIC OR PROBLEM



WATCHDOG

MONITOR AND INTERVENE WHEN
NECESSARY TO ASSURE MARKET
PERFORMANCE



PARTNER

ENGAGE WITH INDIVIDUALS, GROUPS,
AND ORGANIZATIONS TO ACHIEVE
MUTUAL GOALS



The HPC: Main Responsibilities

- Monitor system transformation in the Commonwealth and cost drivers therein
- Make investments in innovative care delivery models that address the whole-person needs of patients and accelerate health system transformation
- Promote an efficient, high-quality health care delivery system in which providers efficiently deliver coordinated, patient-centered, high-quality health care that integrates behavioral and physical health and produces better outcomes and improved health status
- Examine significant changes in the health care marketplace and their potential impact on cost, quality, access, and market competitiveness

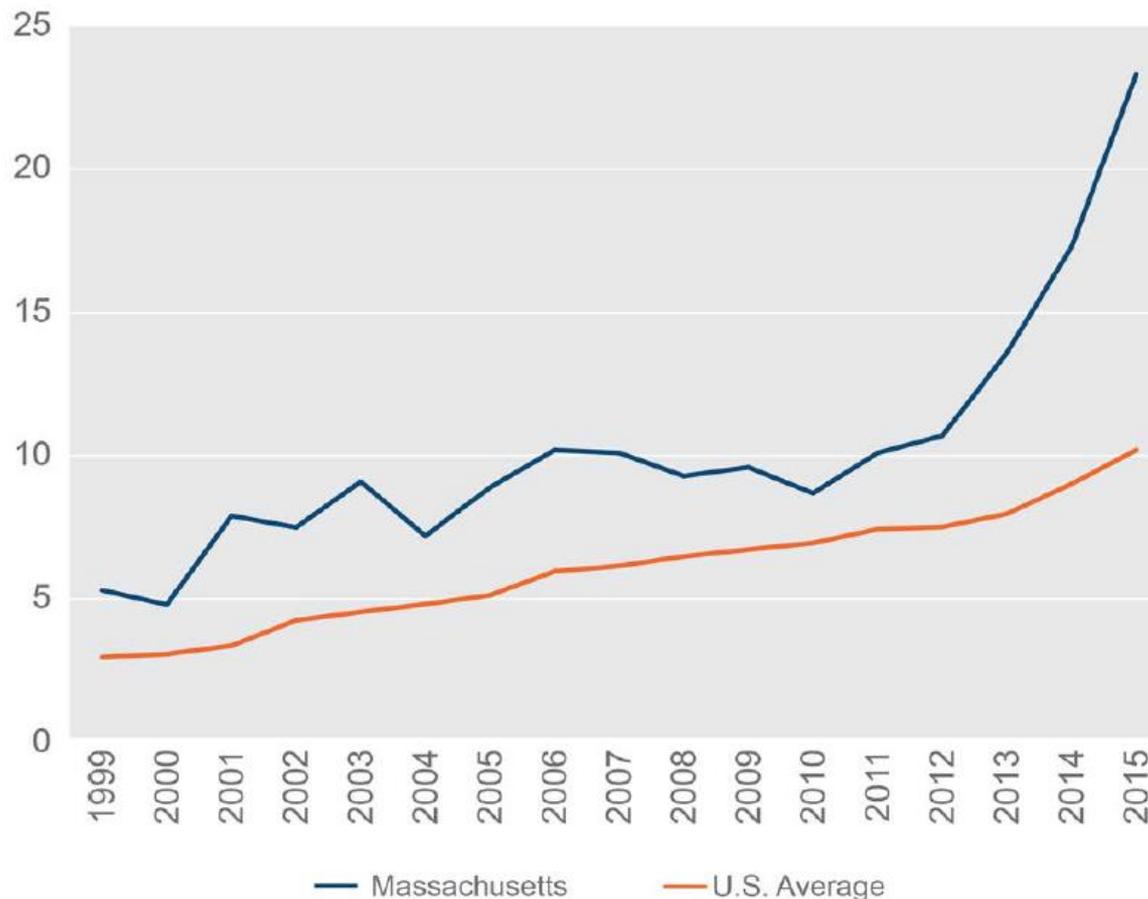


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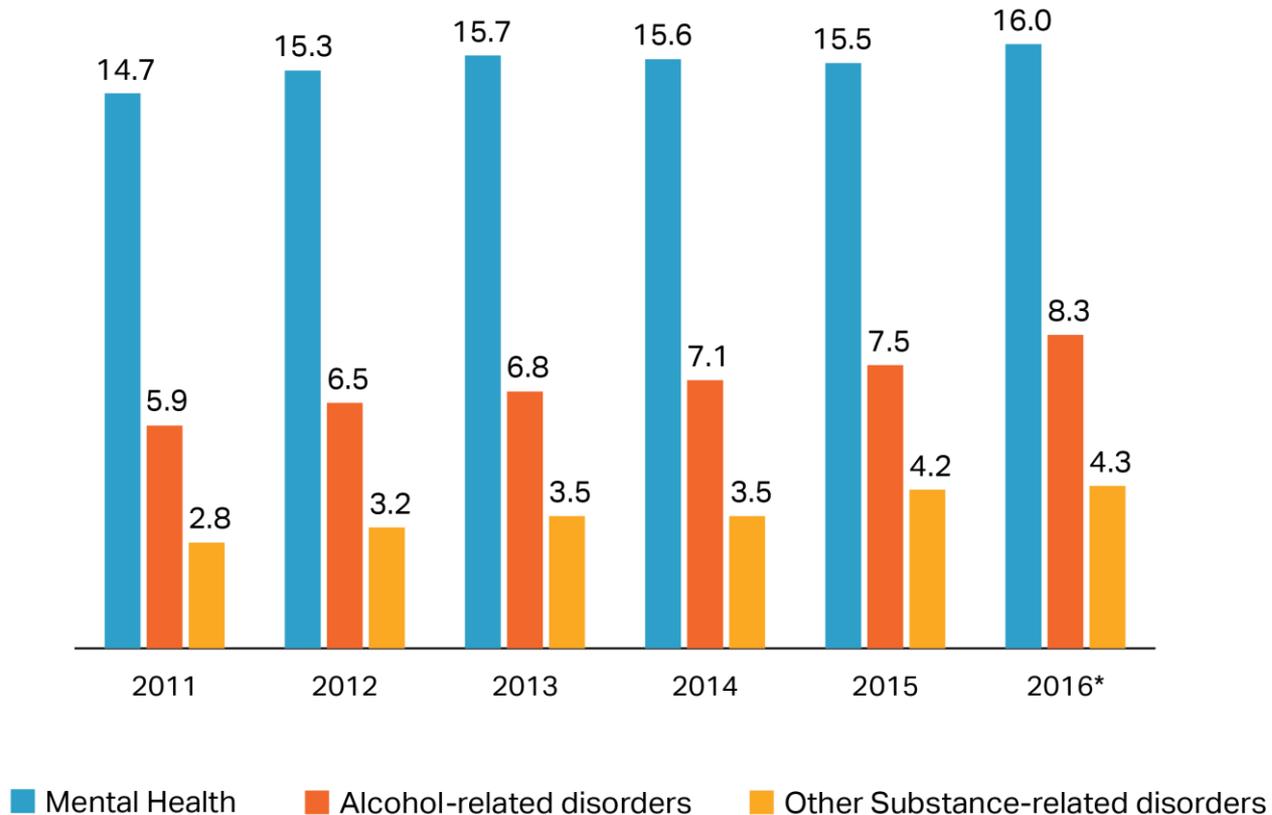
From 2010 to 2015, the rate of opioid-related drug overdose deaths in Massachusetts increased more rapidly than the national average

Opioid-Related Overdose Deaths per 100,000, Massachusetts and U.S., 1999 – 2015



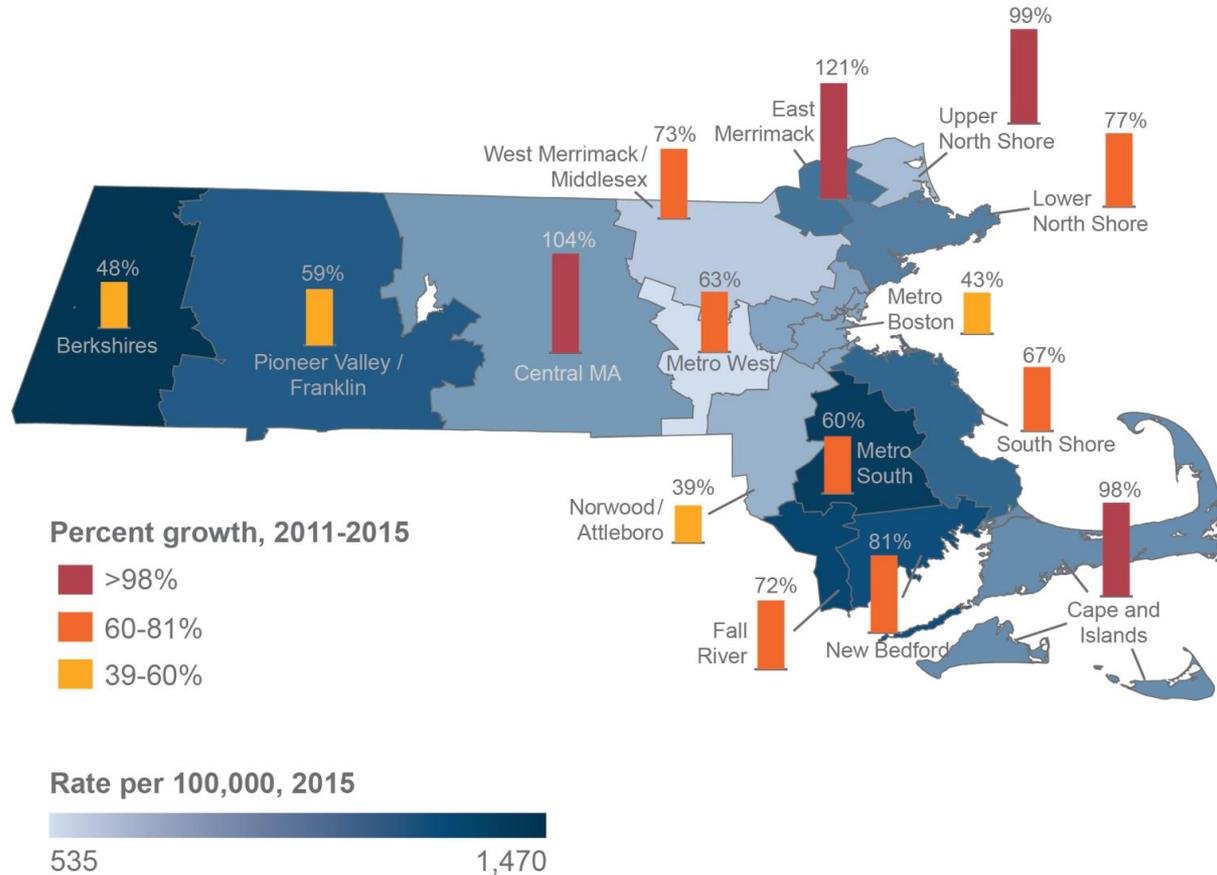
Since 2011, behavioral health ED visits involving alcohol and SUD diagnoses increased 40% and 54% respectively

Behavioral health-related ED visits per 1000 residents,
2011 – 2016



In 2015, the Berkshires and Metro South had the highest rate of opioid-related discharges per population

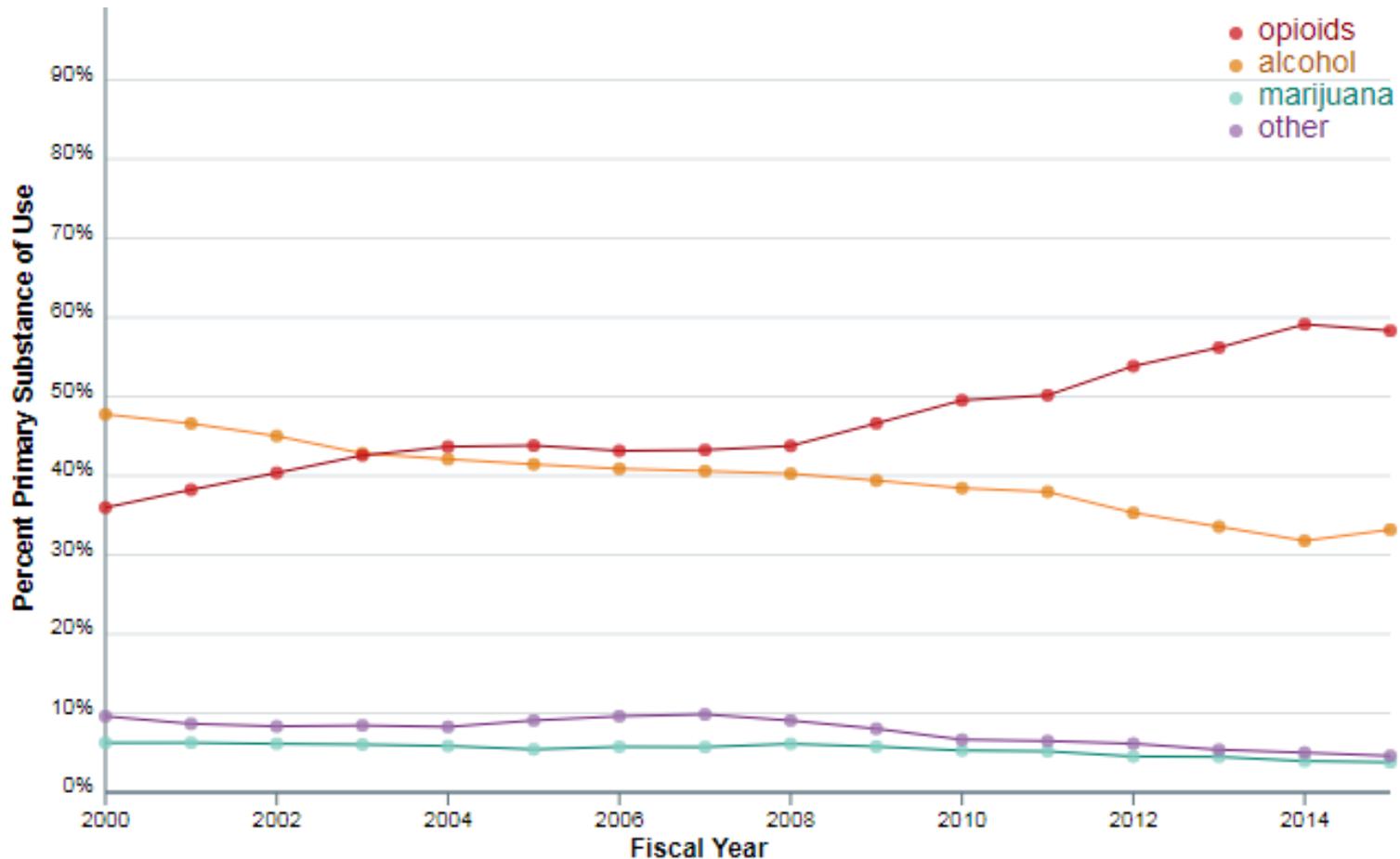
Opioid-related hospital discharges by HPC region, mapped by patient's zip code, 2011 and 2015



Source: HPC Analysis of the Center for Health Information and Analysis (CHIA), Hospital Inpatient Discharge and Emergency Department Databases, 2011 and 2015
 Notes: For more information on how HPC created these regions, please see: <http://www.mass.gov/anf/docs/hpc/2013-cost-trends-report-technical-appendix-b3-regions-of-massachusetts.pdf>.

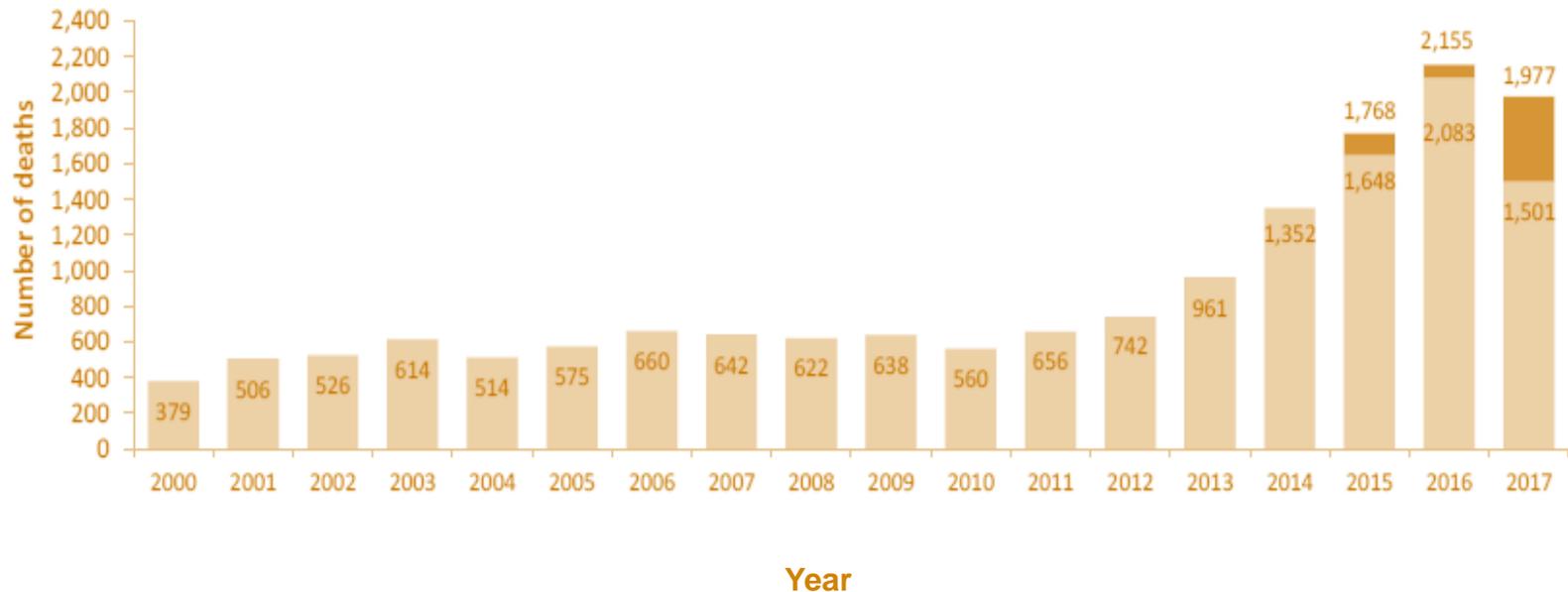
From 2000 to 2015, the rate of admissions to substance abuse treatment centers in Massachusetts for opioids increased by 61%

Primary Substance of Use When Entering Treatment, All Massachusetts Towns, 2000-2015



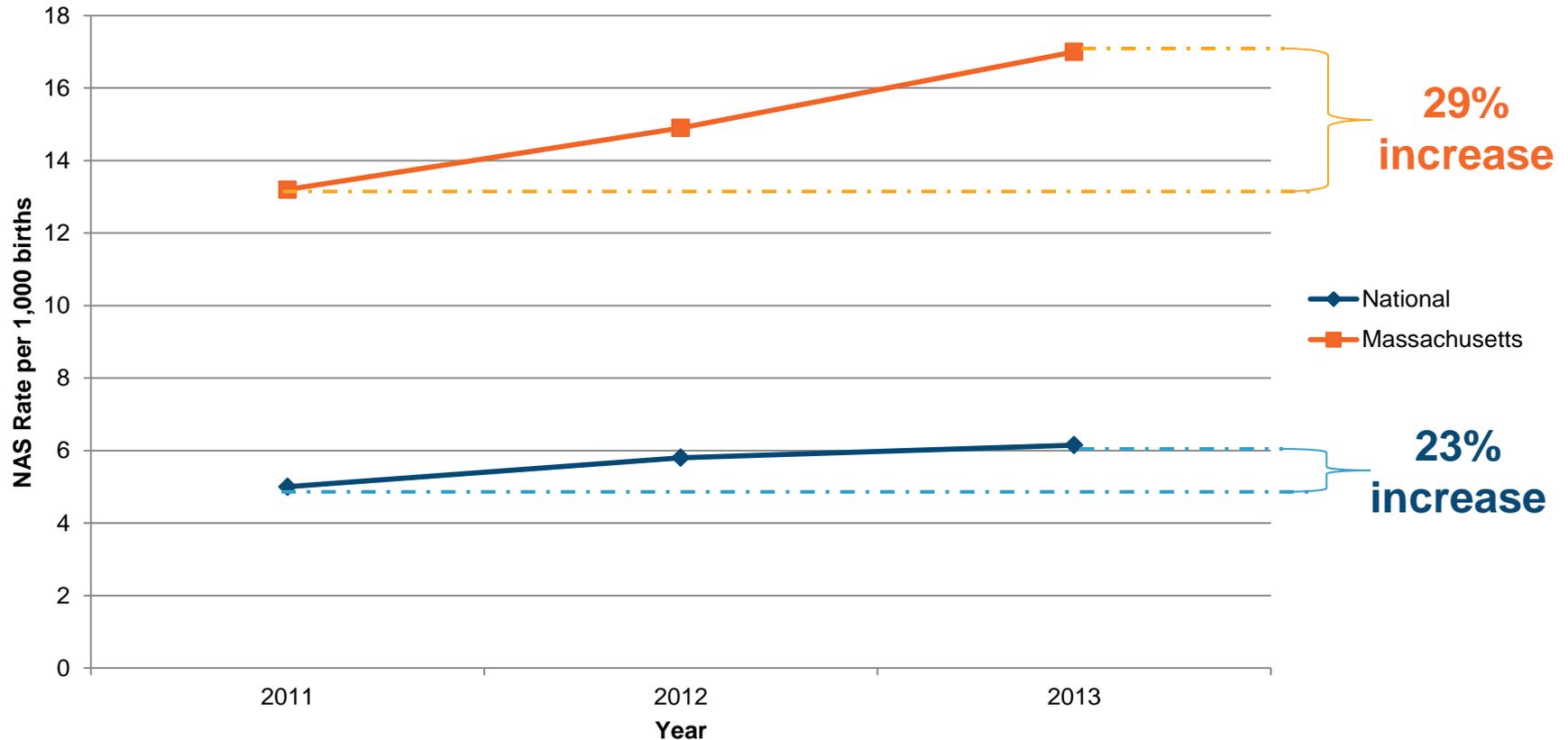
Between 2016 and 2017, the opioid-related death rate in Massachusetts declined for the first time in seven years

Rate of Opioid-Related Death Rates, All Intentions, Massachusetts Residents, 2000 – 2017



Neonatal Abstinence Syndrome (NAS) has increased rapidly in Massachusetts, compared to national trends

National vs. Massachusetts trends in NAS births (2011-2013)



Notes: Generated using HPC analysis of Center for Health Information and Analysis, Inpatient Discharge Database 2011-2015 and Ko JY, Patrick SW, Tong VT, Patel R, Lind JN, Barfield WD. Incidence of Neonatal Abstinence Syndrome — 28 States, 1999–2013. MMWR Morb Mortal Wkly Rep 2016;65:799–802. DOI: <http://dx.doi.org/10.15585/mmwr.mm6531a2>

NAS discharges were identified using ICD-9-CM diagnosis code 779.5 (drug withdrawal syndrome in a newborn).



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HPC CHART: Foundational investments in system transformation

Community Hospital Acceleration, Revitalization, and Transformation (CHART)

Funding

\$9.2M invested in Phase 1; **\$60M** committed in Phase 2. The funding source is a one-time assessment on health plans and well-financed acute care hospitals.*

Eligibility

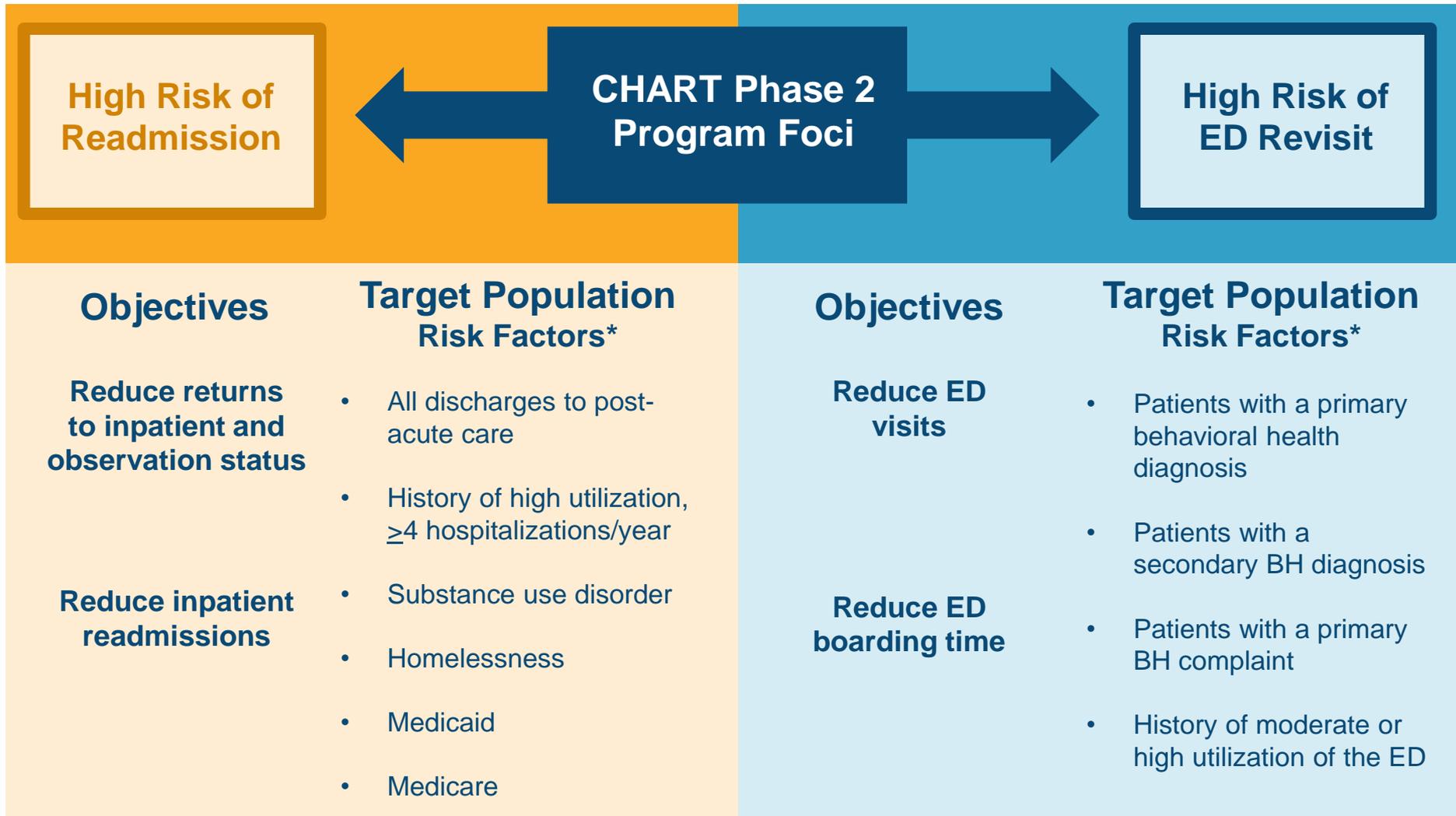
Massachusetts community hospitals that are **non-profit**, **non-teaching**, and have **relatively low price**.

Goal

To enhance the delivery of efficient, effective care for **health system transformation**.



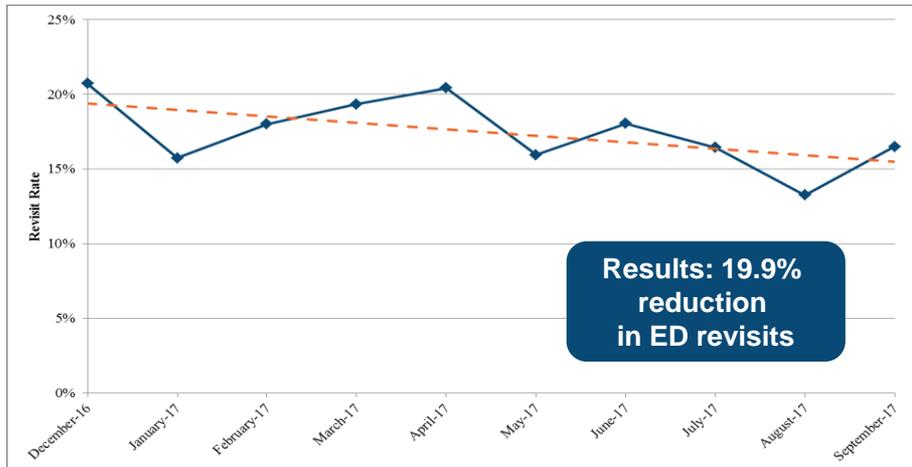
CHART Phase 2 programs focus primarily on patients with a high risk of hospitalization and/or a high risk of ED revisits



BID-Plymouth CHART Phase 2 sustaining initiatives addressing SUD at the individual, facility, and community levels

Primary Aim

Reduce ED revisits for patients with primary BH diagnosis by 20%



Results: 19.9% reduction in ED revisits

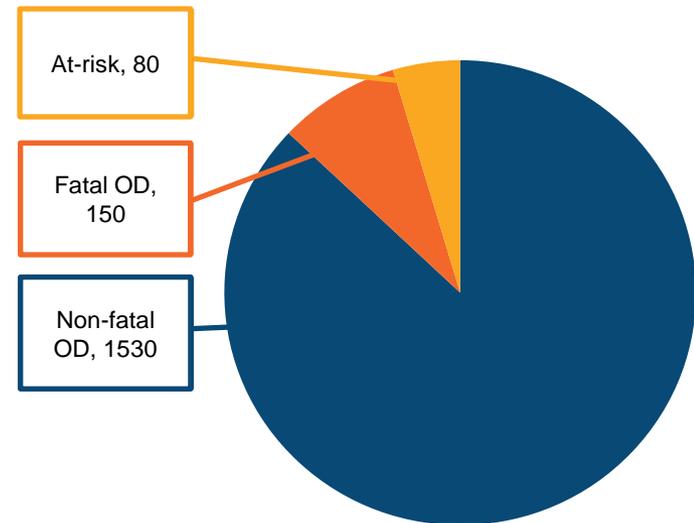
Integrated Care Initiative

- Focuses on expanded management of patients with SUD
- Collaboration with community agencies to meet the clinical and BH needs of patients and
- Outreach within 2 days and access to treatment within 5-7 days.
- 3200 referrals to date

Plymouth County Outreach

- Follow-up with all 27 Plymouth County police departments for non-fatal overdose and individuals “at-risk”:
- Community visits by clinician to offer addiction treatment resulting in 740 home visits with 250 individuals and 270 families

2017 Plymouth County Opioid Incidents



HPC's Health Care Innovation Investment Program

The Health Care Innovation Investment Program: \$11.3M invested in innovative projects that further the HPC's goal of **better health and better care at a lower cost.**



Targeted Cost Challenge Investments Awardee Highlight: *Berkshire Medical Center*



Challenge Area

Behavioral Health Integration

Partners

- Hillcrest
- Community Health Programs
- Suburban Internal Medicine
- Eastern Mountain Medical Associates

Total Initiative Cost

\$822,070

HPC Funding

\$741,920

Target Population

Primary care patients of Award Partner practices with a diagnosis of mental illness, substance use disorder, or a co-occurring disorder who have been referred for services

Primary Aim

Reduce ED visits by 66% and reduce detox/residential treatment admissions by 25%

Service Model

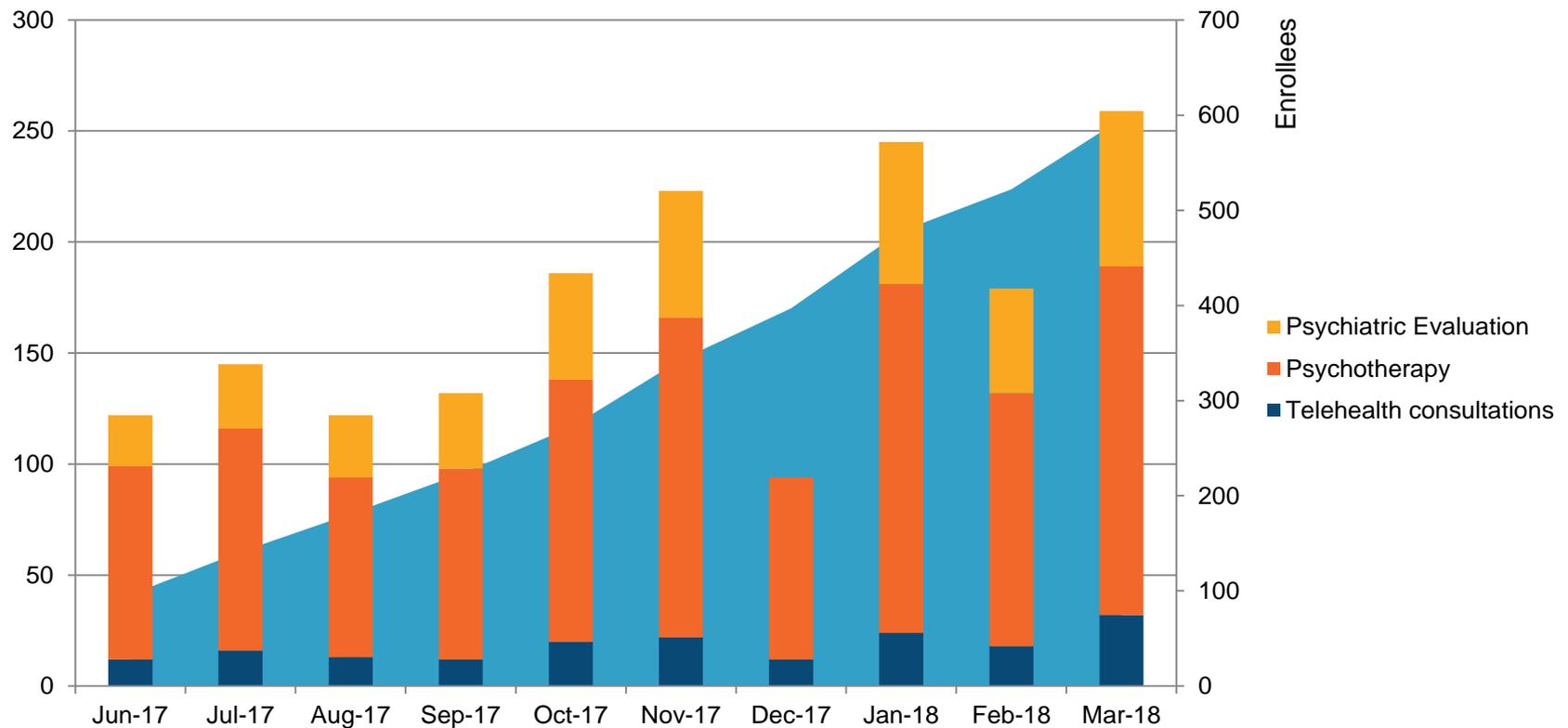
Form a care coordination hub to integrate behavioral health care into primary care, and create a safety net for potentially unstable patients to easily access and maintain care located in the community

Evidence Base

- IMPACT
- Hub for Integrative Health

Berkshire performance: Enrollment and Service Delivery

Berkshire Medical Center launched their Targeted Cost Challenge Investment initiative in June 2017 and continues to enroll patients at 6 primary care locations across Berkshire County.



Berkshire performance: Emerging signals of success

Halfway through its period of performance, the initiative is showing positive intermediate outcomes.



+76%

**better coping
skills**

(Average per-patient change in
PSEQ-2)



**5% lower
symptom
severity**

(Average per-patient change
in MYMOP2 scores)

By the Numbers: Mother and Infant-Focused NAS Interventions

6 initiatives

Funded by the HPC

\$3 million

HPC funding

59 Organizations

collaborating to serve opioid-exposed infants and pregnant women with OUD, including:

- Hospitals
- OB Practices
- Behavioral Health Providers
- MAT Providers
- Social Services

Initiatives span the Commonwealth:
From Springfield to Middlesex County



Collaboration with DPH
to provide outpatient wraparound services to pregnant women with OUD prenatally and post-partum

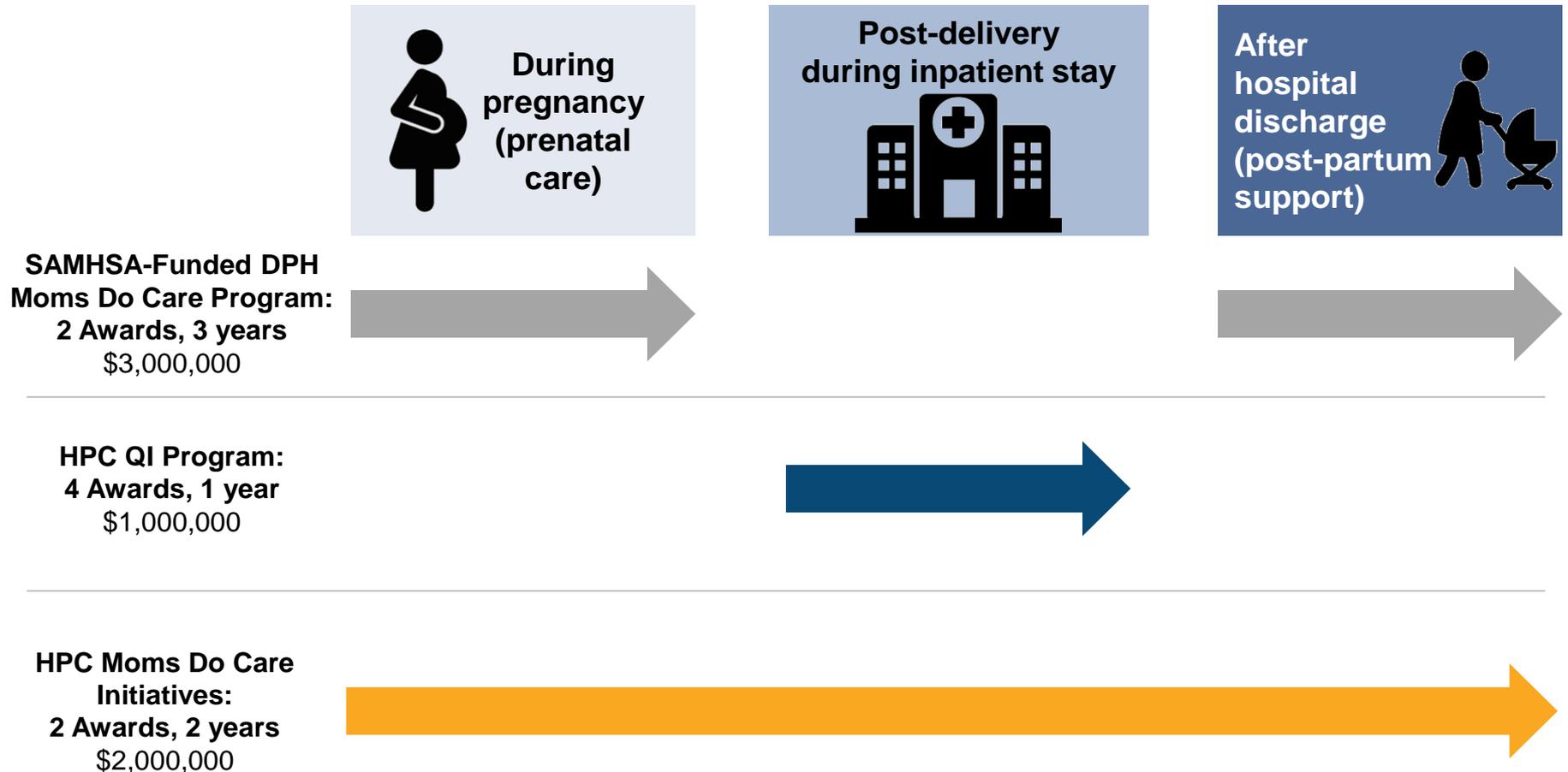
>450 infants with NAS

Treated by HPC awardee hospitals in 2015

Initiatives aim to achieve:

- Reductions in length of stay
- Increased rates of early skin-to-skin contact, breastfeeding, and rooming-in care
- Reductions in readmissions

Aligning with and expanding on a DPH initiative allows for interventions to be applied across broader spectrum of continuum



HPC's NAS Interventions awardee activities

HPC is investing in both inpatient quality improvement initiatives to address treatment of infants with NAS, and outpatient efforts to increase adherence to pharmacologic treatment among pregnant and post-partum women with opioid use disorder (OUD). HPC's 6 hospital grantees have begun work to achieve the following aims.

Inpatient activity:

- Facilitate “rooming-in” for eligible women & infants
- Increase breastfeeding rates
- Facilitate early initiation of skin-to-skin contact after birth
- Provide bedside psychotherapy to women after birth
- Increase # of infants discharged to biological family
- Make EI referral prior to discharge
- Treat infants in need of pharmacologic intervention with methadone instead of morphine

Outpatient activity:

- Screen pregnant women for OUD at first prenatal appointment
- Increase engagement in and adherence to pharmacologic treatment during pregnancy among women with OUD
- Provide same-day co-located BH and prenatal care
- Provide social supports to facilitate access to treatment (e.g., childcare, transportation)
- Improve post-discharge follow up with EI, pediatrics, and addiction treatment provider

NAS Intervention Awardee Highlight: Baystate Medical Center



Service Model

- Allocate rooms on the postpartum floor to provide care to eligible mother-infant dyads during observation and treatment phases of NAS
- Certify all nurses caring for infants with NAS in the Finnegan scoring system
- Dedicate trained nurses to provide medical care including monitoring of Finnegan scores, administration of prescribed medications, and providing daily infant care in cooperation with the parents
- Quarterly NAS and opiate treatment updates integrated into regularly scheduled nursing "Brown Bag" conferences

Initiative Type

Inpatient Quality Improvement Initiative

Target Population

All infants monitored or scored for NAS
(112 infants in 2015)

Primary Aim

Increase rooming-in care for eligible maternal-infant dyads by 30%

Secondary Aims

1. Increase breastfeeding rate by 30% for opioid exposed infants
2. Increase and skin-to-skin care rate by 30% for opioid exposed infants

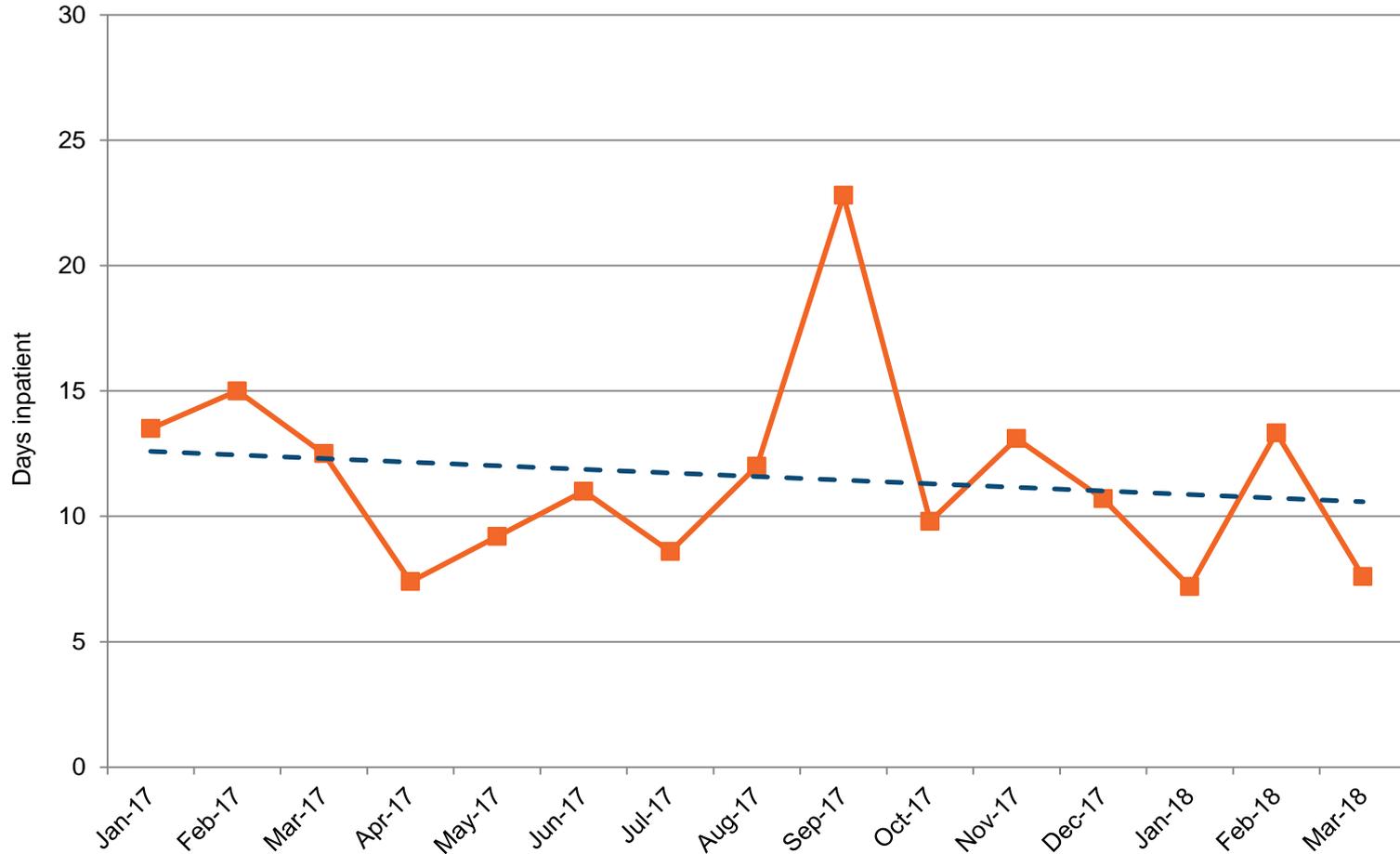
Total Initiative Cost

\$400,481

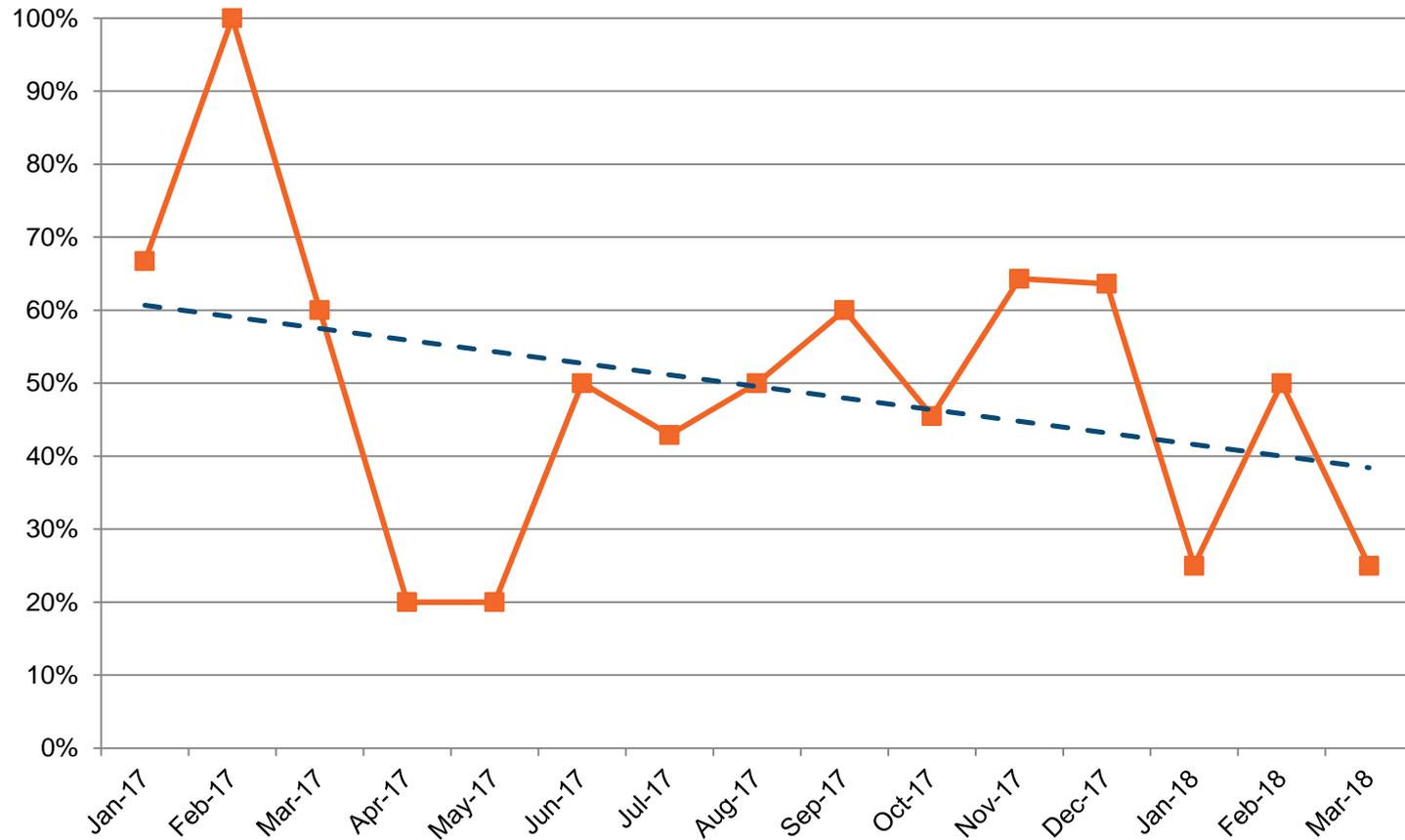
HPC Funding

\$249,778

Baystate Medical Center: average length of stay for full term infants with NAS

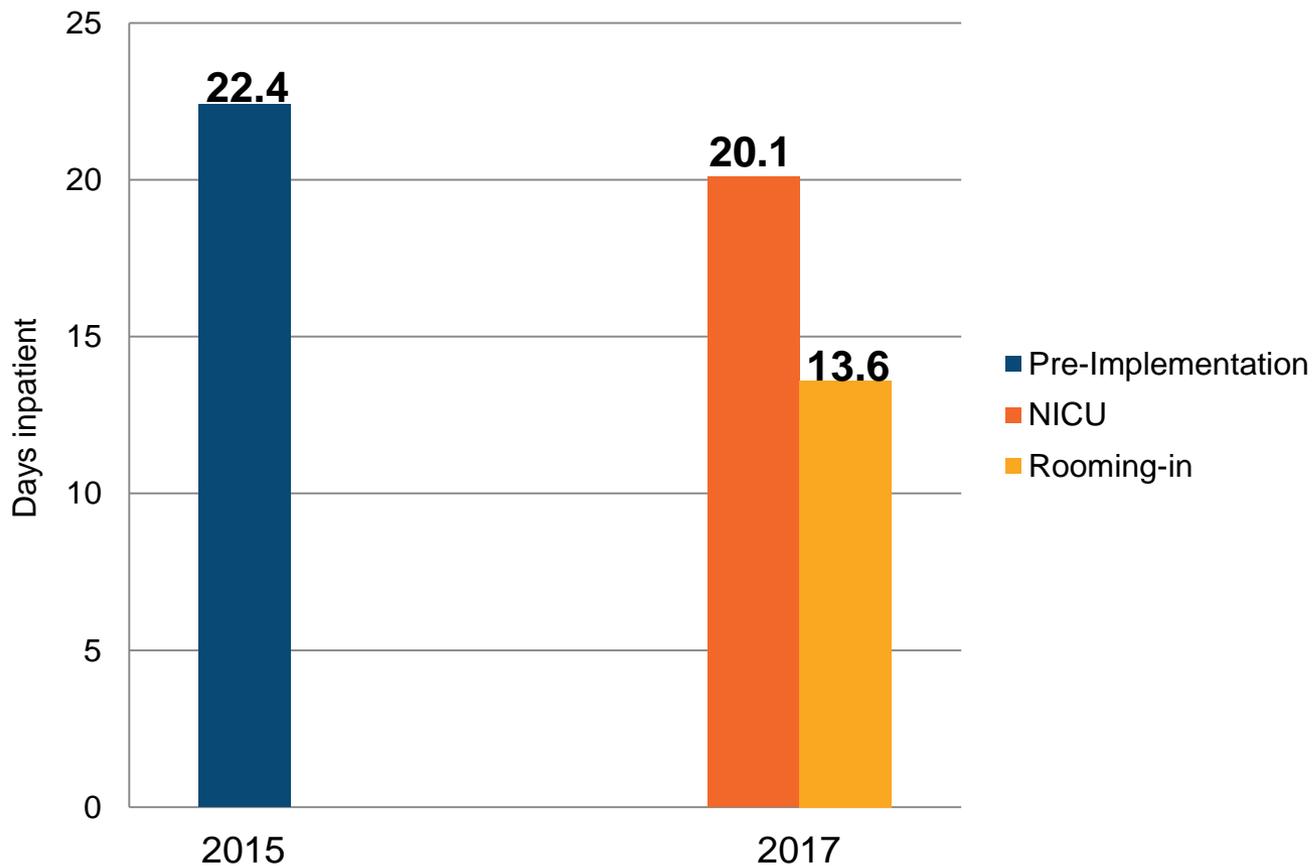


Baystate Medical Center: full term infants receiving pharmacologic treatment



Baystate Medical Center: average length of stay for infants requiring pharmacologic treatment is lower when dyads room-in

Average length of stay (LOS) for opioid-exposed infants requiring pharmacologic treatment has decreased since the launch of the HPC-funded NAS Intervention program.



NAS Intervention Awardee Highlight: Lawrence General Hospital



Service Model

- Define an NAS episode of care, and develop a framework that identifies both the elements of an NAS episode and the associated components of cost
- Dedicate inpatient SW to supporting expecting women by providing prenatal tours, setting expectations of NAS, and conducting OB and community outreach
- Provide inpatient counseling and resources 5 days a week
- Increase non-pharmacologic treatment of NAS symptoms
- Increase number of volunteer cuddlers
- Offer training to all physicians, nurses, and social workers on sensitivity and trauma-informed care

Initiative Type

Inpatient Quality Improvement Initiative

Target Population

All infants monitored or scored for NAS
(45 infants in 2015)

Primary Aim

Reduce the cost per NAS episode by 10%

Secondary Aims

1. Reduce inpatient length of stay by 20%
2. Increase the breastfeeding rate by 20% for eligible infants discharged into the custody of birth parents

Total Initiative Cost

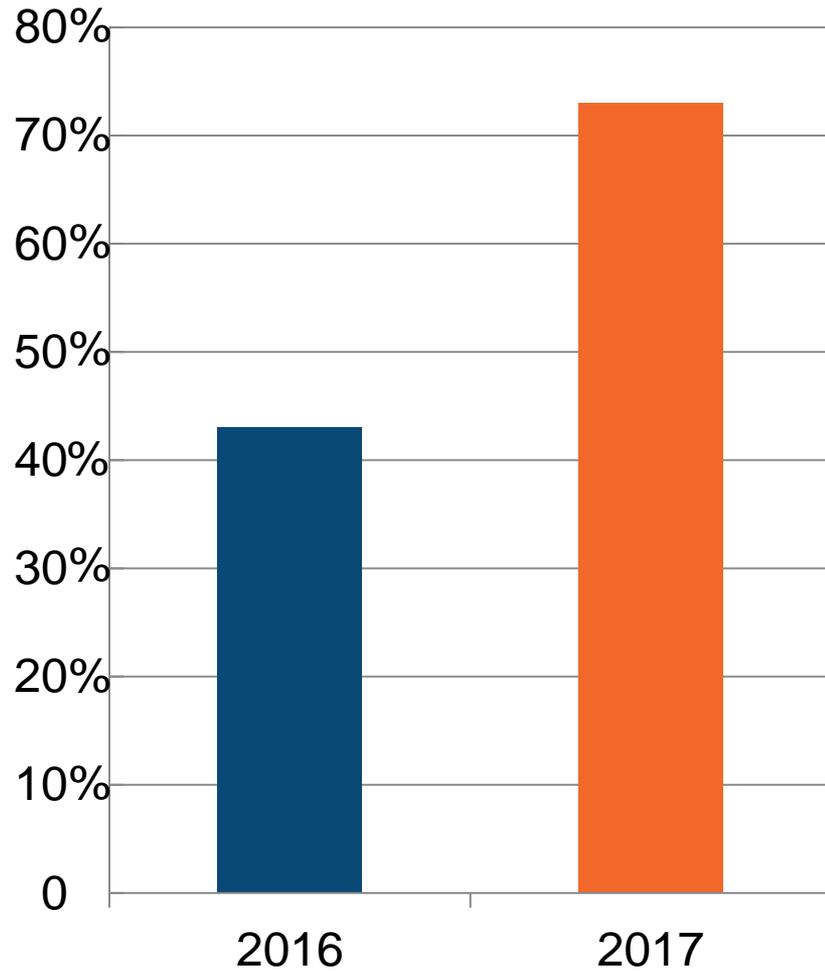
\$400,481

HPC Funding

\$250,000

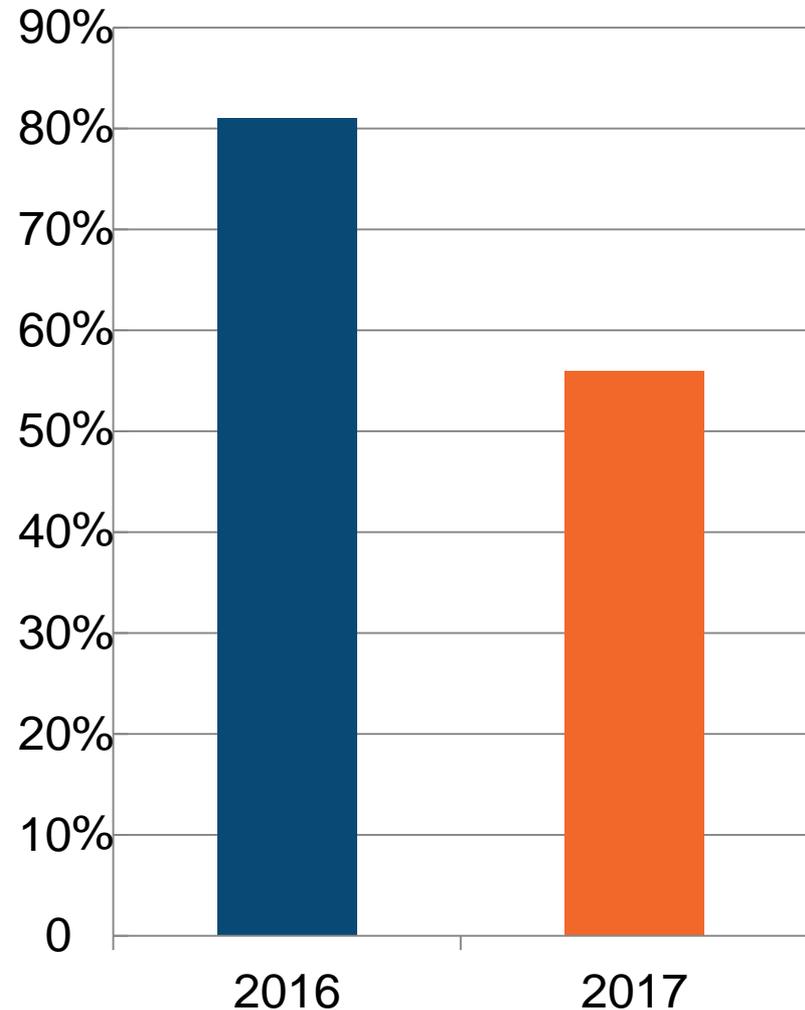
Lawrence General Hospital: breastfeeding rates

- In 2016:
 - 43% exclusive breastfeeding, or combination feeds
 - *14 eligible patients*
- In 2017:
 - 73% exclusive breastfeeding or combination feeds
 - **70% increase**
 - *15 eligible patients*



Lawrence General Hospital: pharmacologic treatment usage

- In 2016, preliminary data suggests:
 - **84%** required medication for treatment
 - *19 total study patients (23 annual)*
- In 2017
 - **36%** required medication for treatment
 - NO babies required second line agent
 - **57% decrease!**
 - *22 total study patients (25 annual)*



Lawrence General Hospital: cost of care for opioid-exposed infants

- In 2016:
 - **\$23,809** average per admission
 - *20 patients*
- In 2017:
 - **\$16,722** average per admission
 - \$7,000 savings each newborn
 - **30% decrease**
 - **\$156,000 in savings in 2017**
 - *22 patients*



HCII Program Timeline and Next Steps



Some awardees are in the final months of their Implementation Period, while some may still have as long as a year to continue operations.

SHIFT-Care, the HPC's new \$10 million investment opportunity, received 36 proposals totaling over \$24 million

TRACK 1: Addressing social determinants of health

Support for innovative models that **address social determinants of health** for complex patients in order to prevent a future acute care hospital visit or stay.

Proposed partners include: Legal services providers, hospitals, VNAs, housing authorities, outpatient service providers.



11 Applicants requested funding of \$7 million



FUNDING TRACK 2a: Addressing behavioral health needs

Support for innovative models that **address the behavioral health care needs** of complex patients in order to prevent a future acute care hospital visit or stay.

Proposed partners include: Police departments, primary care practices, Councils on Aging, rehabilitation centers.



10 Applicants requested funding of \$7 million



FUNDING TRACK 2B: Enhancing opioid use disorder treatment

Section 178 of ch. 133 of the Acts of 2016 directed the HPC to invest not more than \$3 million to support hospitals in further testing **ED initiated pharmacologic treatment for SUD**.

Proposed partners include: Outpatient OUD service providers, sheriff's departments, universities, municipalities.



15 Applicants requested funding of \$9.6 million



Contact Information

For more information about the Health Policy Commission:

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E-mail us: HPC-Info@mass.gov