MASSACHUSETTS
HEALTH POLICY COMMISSION

QIPP Committee Meeting

Analysis of Opioid Epidemic's Impact on Health Care System and Treatment Availability

March 23, 2016

An Act relative to Substance Use, Treatment, Education and Prevention

Bill. No. 4056

Passed unanimously and signed on March 14, 2016 by Governor Baker

Includes a number of recommendations from the Governor's Opioid Working Group

Key provisions relating to health care system

Mandatory evaluation of patients presenting with opioid overdose symptoms (effective July 1, 2016)

- Must be conducted w/in 24 hrs of arrival at ED
- If treatment is indicated, must be offered (inpatient or outpatient)
- If patient refuses treatment, must be provided with information on outpatient resources
- Evaluation must be covered by all payers

7-Day supply limit on opiate prescriptions (effective immediately)

- First time prescriptions to adults cannot exceed 7 day supply
- No prescription to minor can exceed 7 day supply
- Exceptions for emergencies, chronic pain, palliative care, oncology

Partially filling prescriptions (effective immediately)

- Pharmacist may partially fill schedule 2 drug at patient's request, but may elect not to
- Unfilled portion of prescription is void

HPC

An Act relative to Substance Use, Treatment, Education and Prevention

Sections of particular relevance to the HPC

1. Requires the HPC, in consultation with DPH and DMH, to study and report on the availability of health care providers that serve patients with dual diagnoses of substance use disorder and mental illness, in inpatient and outpatient settings. The commission shall report to the joint committee on mental health and substance abuse and the house and senate committees on ways and means no later than 12 months following completion of the study.

2. Establishes a special commission to examine the feasibility of establishing a pain management access program, with the goal of increasing access to pain management for patients in need of comprehensive pain management resources. The executive director of the HPC shall serve on the commission. The commission shall begin meeting in June, 2016, and submit its recommendations along with drafts of any legislation by December 1, 2016.

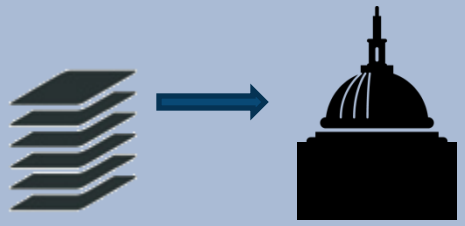
3. Requires carriers to report to the Office of Patient Protection (OPP) on the total number of medical or surgical claims and mental health or substance use disorder claims submitted to and denied by the carrier.

4. Amends statute governing consumer appeal process for risk-bearing provider organizations (RBPOs) & accountable care organizations (ACOs) to require provider denials to inform patients of the right to appeal the decision to the OPP.

Primary aims of HPC's analysis of the opioid epidemic in Massachusetts

1

Providing new research, data, or evidence to support and inform legislative action



2

Identifying & investing in strategic opportunities for care delivery/ payment reforms for substance use disorder treatment that are likely to result in reduced spending and improved quality/access

3

Drawing on our experience with investment & technical assistance programs.

HPC

Key definitions and methods

Methods

To assess the impact of the opioid epidemic on the Massachusetts health care system, HPC examined the number of **opioid-related hospital visits**. For the purposes of this analysis opioid-related **hospital visits** includes ED visits, observation stays, and hospital admissions.

To assess the availability of medication-assisted treatment (MAT), an evidence-based protocol for individuals with opioid use disorder, the HPC examined the location, **geographic region**, and patient travel times for all three forms of MAT. For the purposes of this analysis, MAT includes outpatient methadone clinics, buprenorphine prescribers, and naltrexone providers.*

Definitions

Hospital visits

Inpatient admissions (47 percent of all visits in 2014), observation stays (5 percent), and emergency department visits (48 percent)

- Due to data limitations, only inpatient admissions and ED visits are included certain analyses. See “Sources” on slides for details.

Opioid-related

Hospital visits with a primary or secondary diagnosis related to abuse and misuse of prescription opioids and heroin**

- This set of diagnoses is broader than the set used in DPH’s previously published estimates of deaths averted
- See appendix for comparison of HPC & DPH methodologies

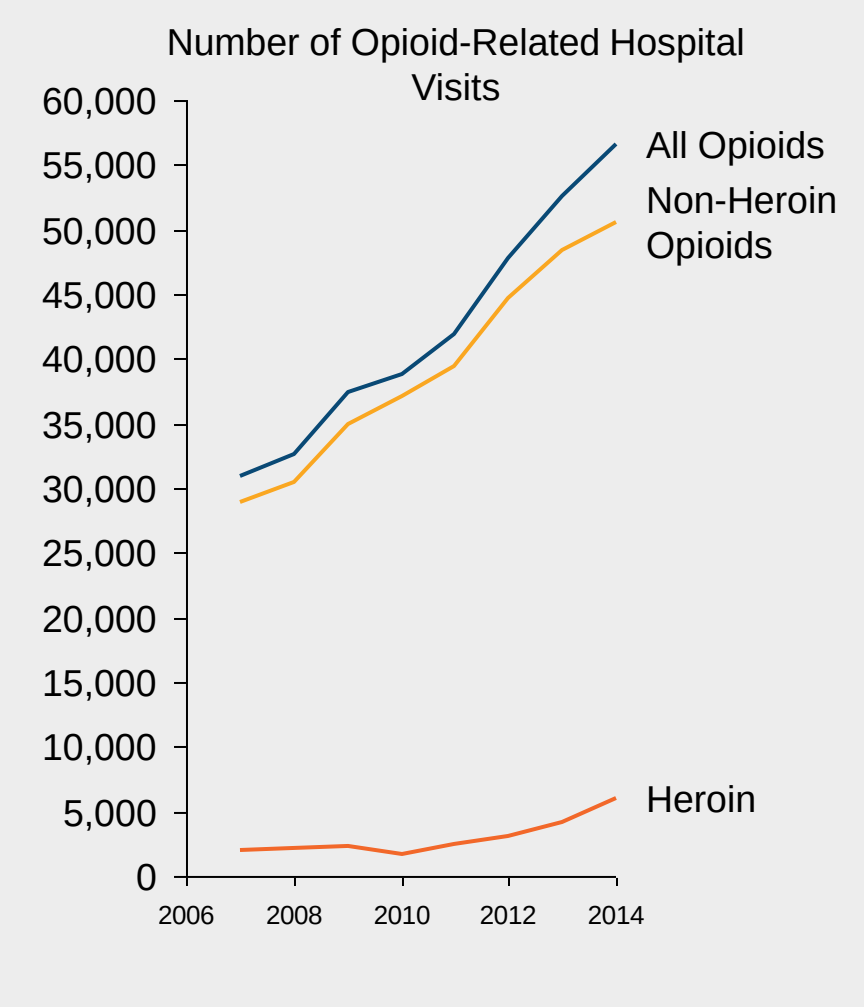
Geographic regions

The HPC’s standard regions, described further in the 2015 Cost Trends Report.

*Methadone data as of 11/20/2015; Buprenorphine data as of 11/5/2015; Naltrexone data received on 8/20/2015

**Analysis based on AHRQ H-CUP methodology See appendix for comparison of codes

The number of opioid-related hospital visits have increased substantially since 2007



Rate of Change of Opioid-Related Hospital Visits

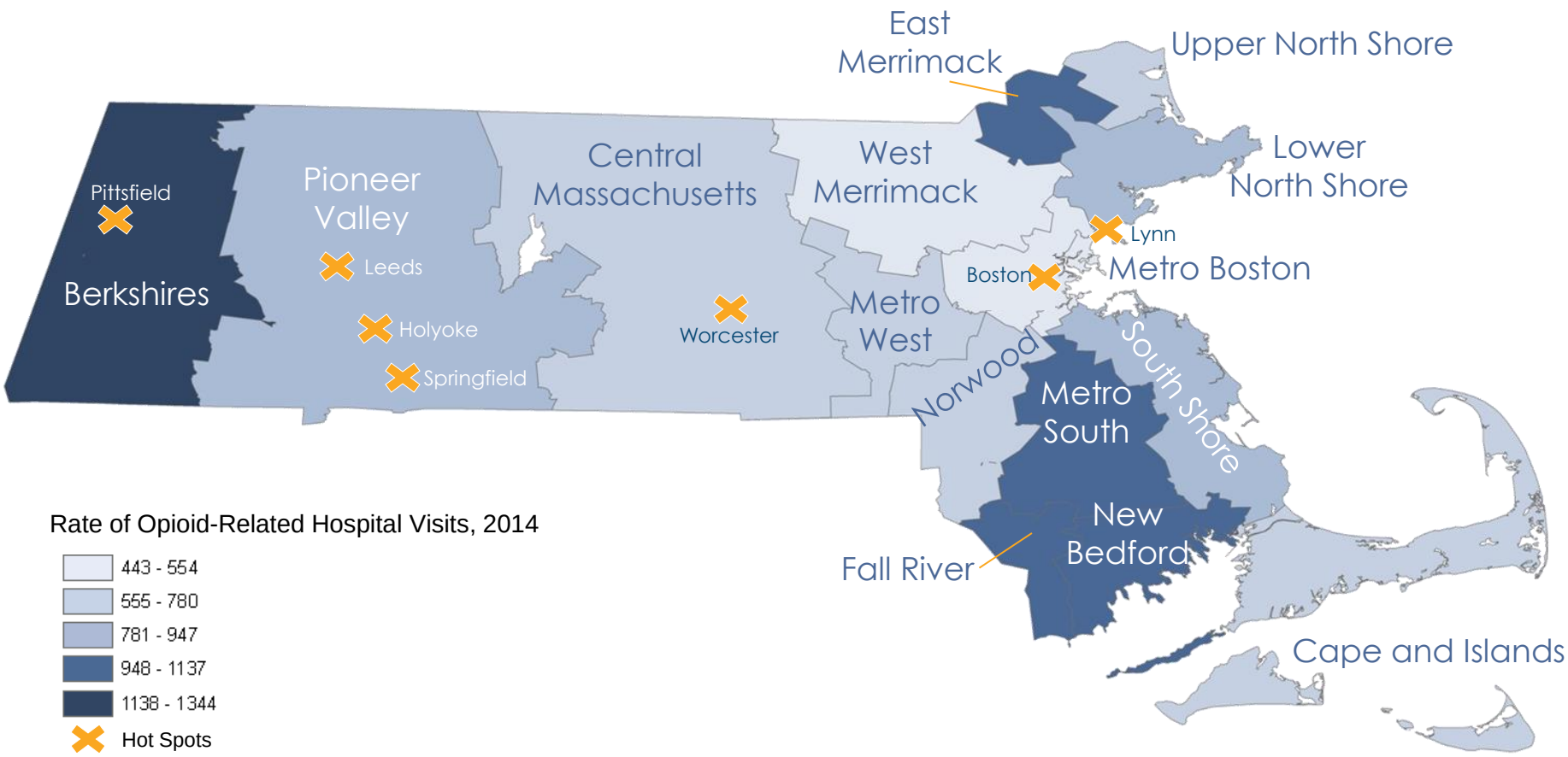
Years	Non-Heroin Opioids	Heroin
2007-2008	6%	6%
2008-2009	15%	11%
2009-2010	6%	-29%
2010-2011	6%	52%
2011-2012	13%	23%
2012-2013	8%	35%
2013-2014	5%	43%

201%

increase in heroin-related hospital visits between 2007 and 2014

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, Outpatient Observation Database, and Emergency Department Database, 2007-2014

The rate of opioid-related hospital visits varies significantly across HPC regions

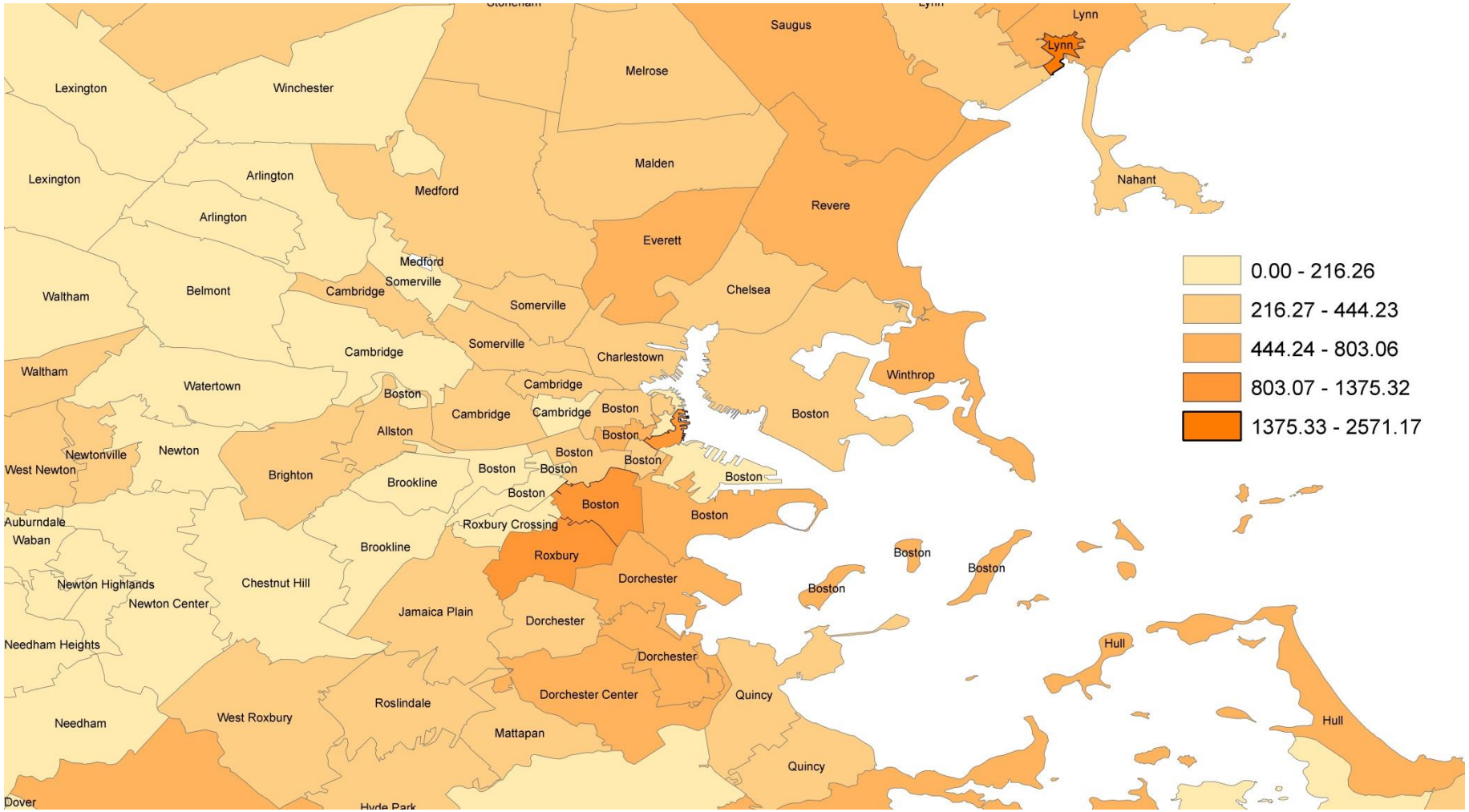


Note: Hot spots are defined as the communities containing the ten zip codes with the greatest rate of opioid-related inpatient admissions and a population greater than 1,000 residents.

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database and Emergency Department Database, 2014; American Community Survey, 2009-2013.

The rate of opioid-related inpatient admissions varies by zip code with distinct hot spots in the Metro Boston area

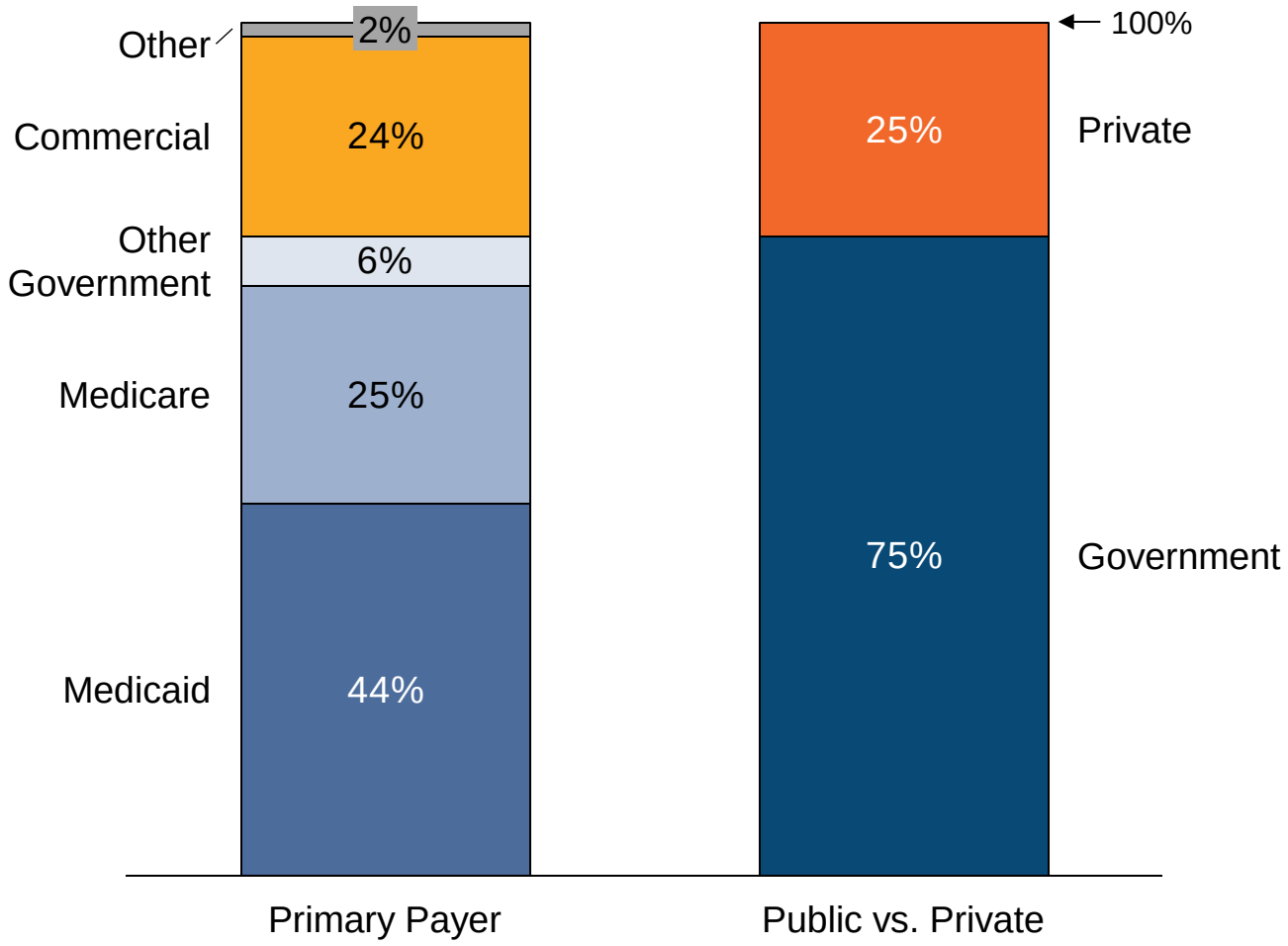
Opioid-related inpatient admissions by zip code for 2014



Darker shading indicates higher rates of admissions

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, 2014; American Community Survey, 2009-2013.

State and federal government is paying for most of opioid-related inpatient admissions

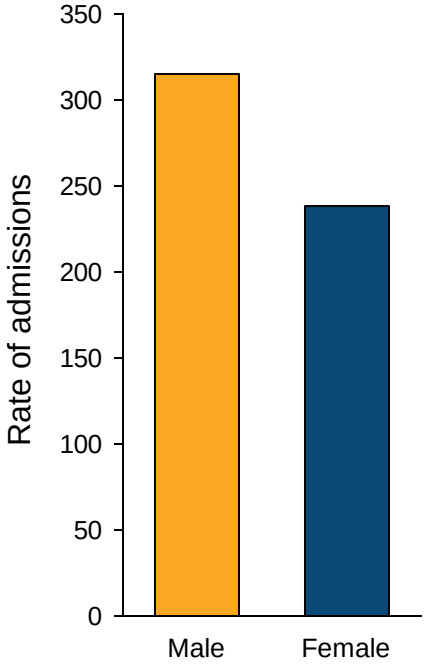


Graph 1:
Note: Principal Payer for Opioid-Related Inpatient Admissions, 2014, n=17,756
Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, 2014

25-35 year old men are most at risk of an opioid-related inpatient admission. When adjusted for age and sex, residents of lower-income communities are more likely to experience an inpatient admission.

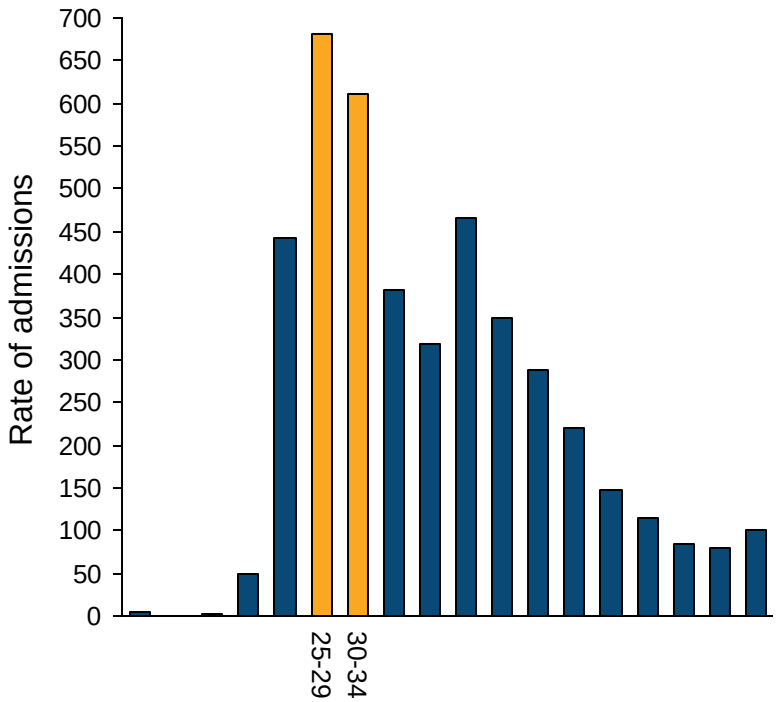
Inpatient Admissions by Gender

Opioid–related inpatient admissions per 100,000, 2014



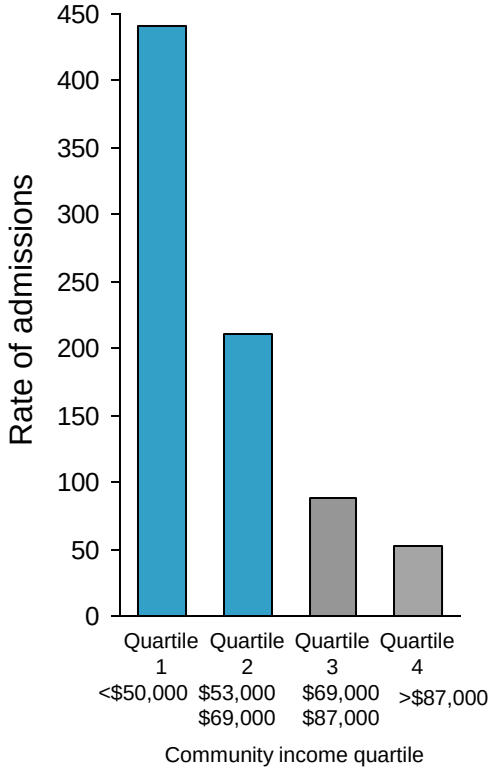
Inpatient Admissions by Age

Opioid–related inpatient admissions per 100,000, 2014



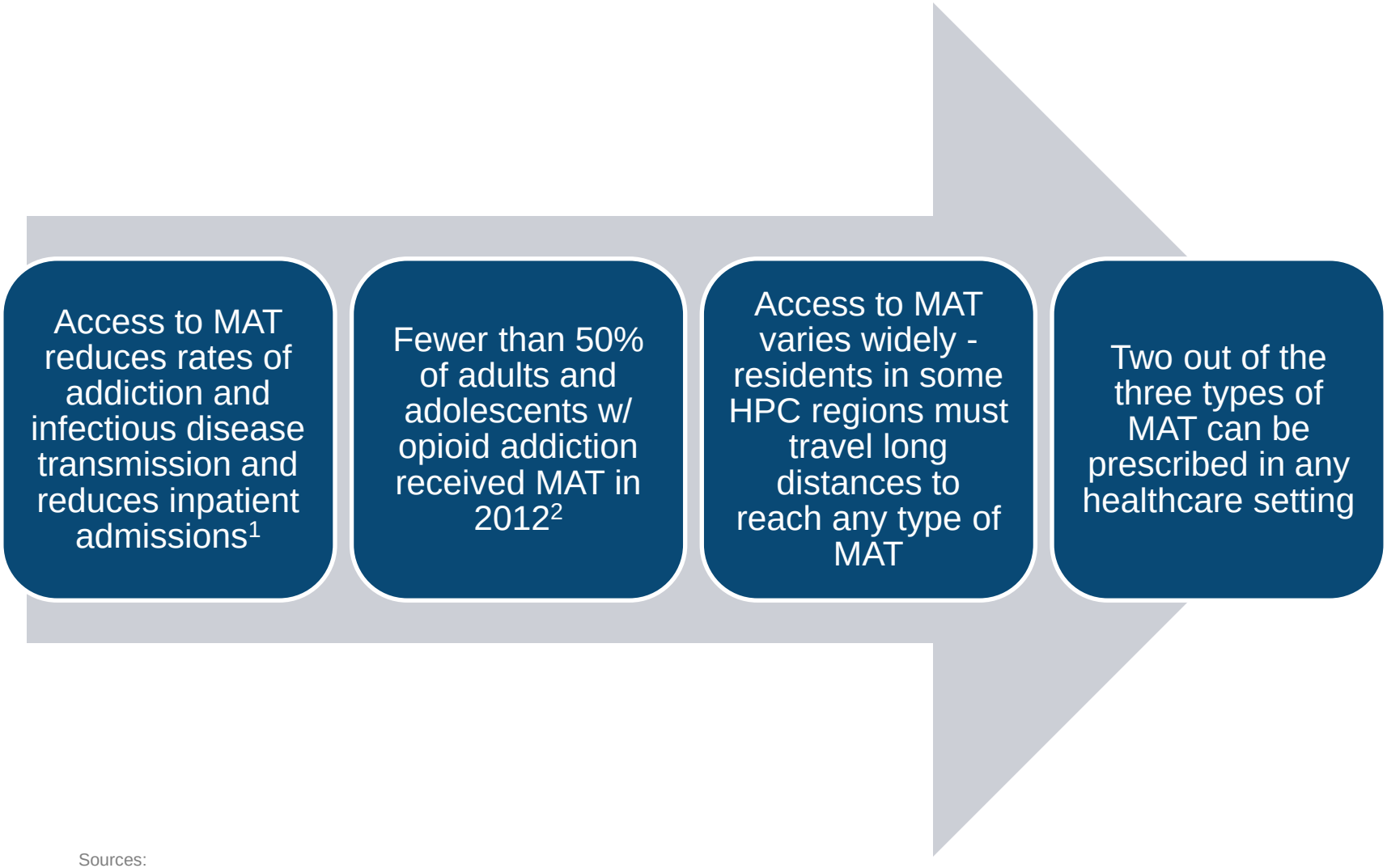
Inpatient Admissions by Income Quartile

Adjusted for age and sex



Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, 2014, American Community Survey, 2009-2013

Medication-assisted treatment (MAT) is an evidence-based protocol for individuals with opioid use disorder, but it is not widely accessible

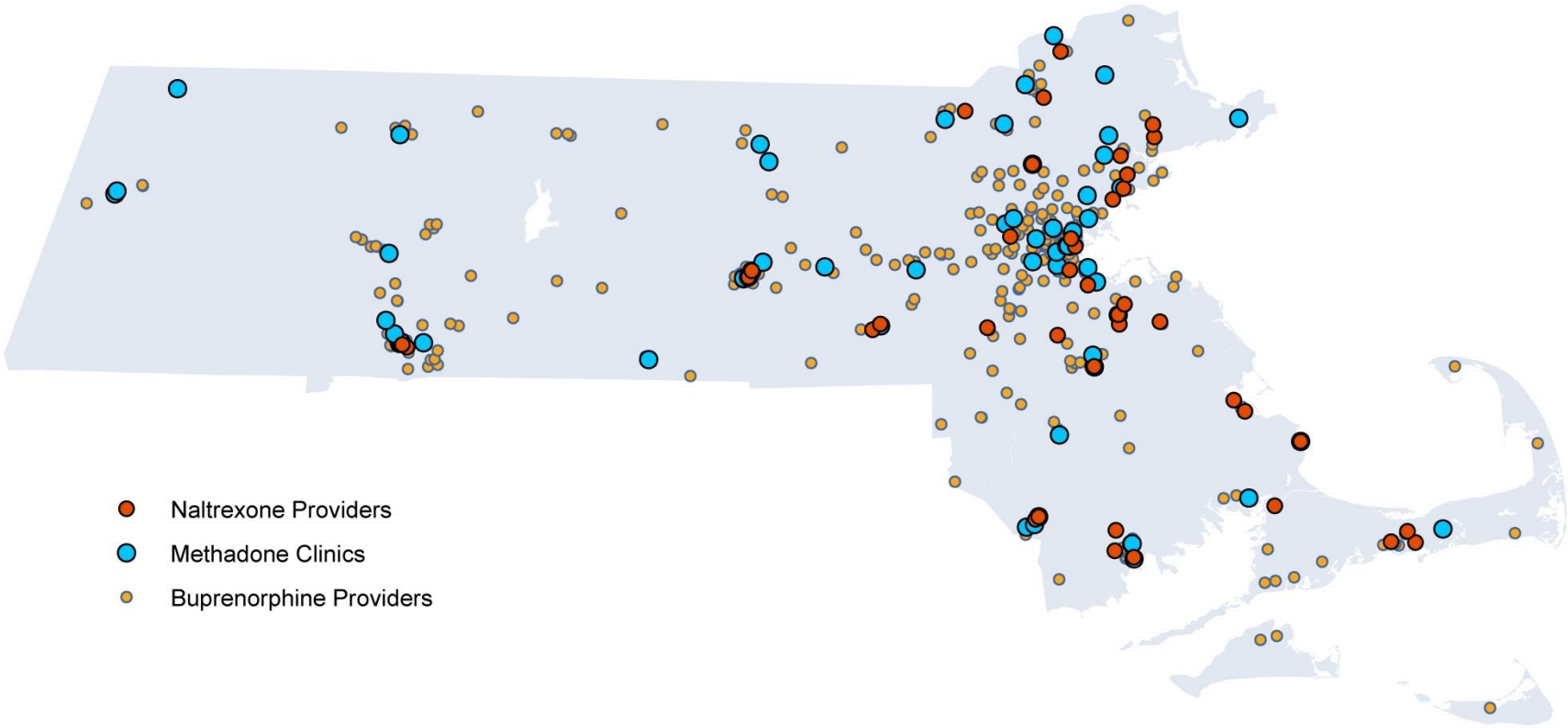


Sources:

1. National Institute on Drug Abuse. Medication-Assisted Treatment for Opioid Addiction – April 2012. Topics in Brief. https://www.drugabuse.gov/sites/default/files/tib_mat_opioid.pdf. April 2012. Accessed December 3, 2015.

2. Substance Abuse and Mental Health Services Administration, Results from the 2012 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-46, HHS Publication No. (SMA) 13-4795. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013

MAT availability varies widely by region, with no clear relationship to the burden of the epidemic



Sources:

Methadone: Substance Abuse and Mental Health Services Administration. Opioid Treatment Program Directory (data retrieved from http://dpt2.samhsa.gov/treatment/directory.aspx on 11/20/2015)

Buprenorphine: Substance Abuse and Mental Health Services Administration. Buprenorphine Treatment Physician Locator (data retrieved from http://www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator on 11/5/2015)

Naltrexone: Prescriber lists provided by Alkermes Pharmaceuticals (data received on 8/20/2015)

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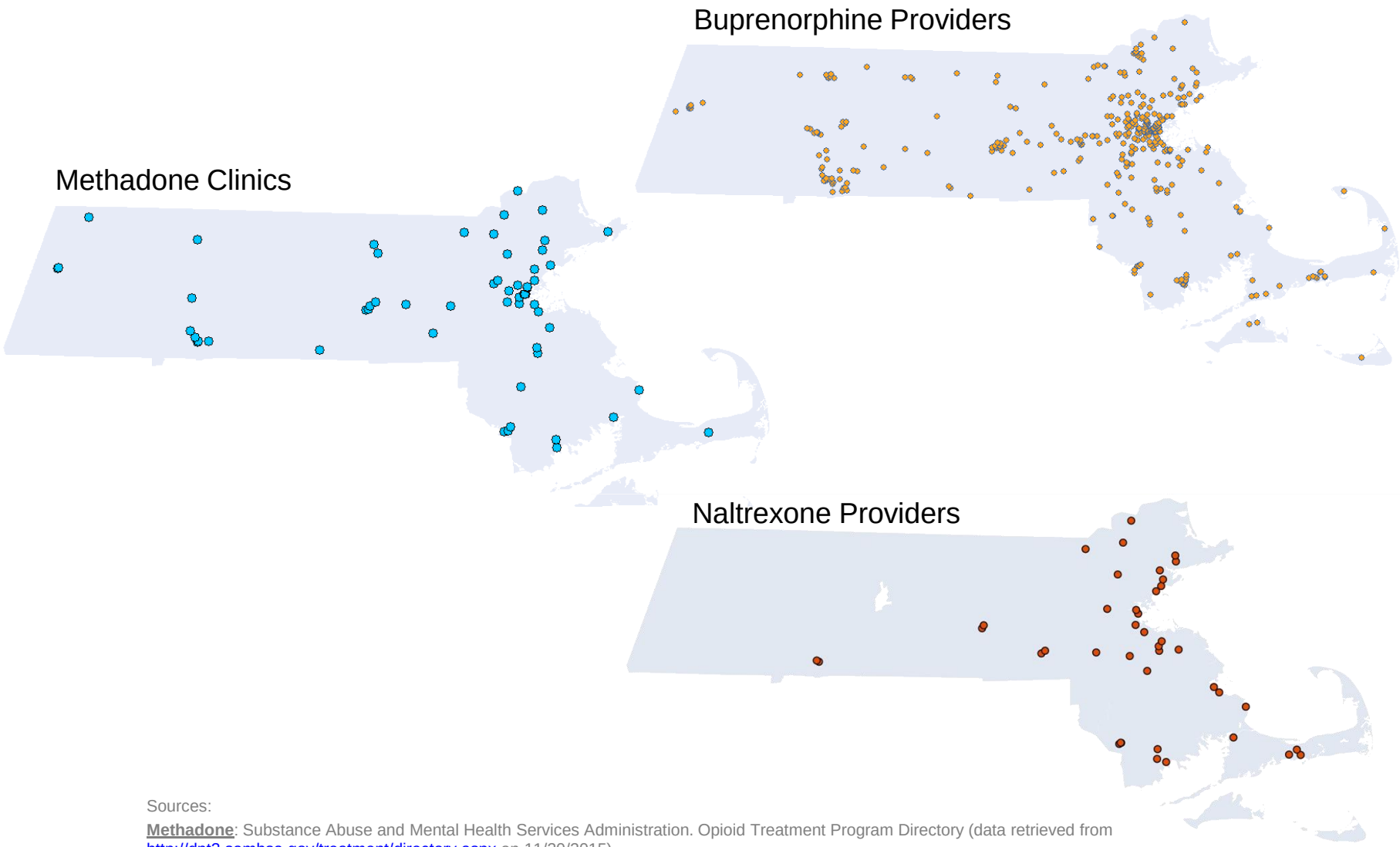
MAT availability varies significantly by drug type, leaving patients in some regions with limited access to certain treatment options



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Methadone: Substance Abuse and Mental Health Services Administration. Opioid Treatment Program Directory (data retrieved from http://dpt2.samhsa.gov/treatment/directory.aspx on 11/20/2015)

Buprenorphine: Substance Abuse and Mental Health Services Administration. Buprenorphine Treatment Physician Locator (data retrieved from http://www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator on 11/5/2015)

Naltrexone: Prescriber lists provided by Alkermes Pharmaceuticals (data received on 8/20/2015)

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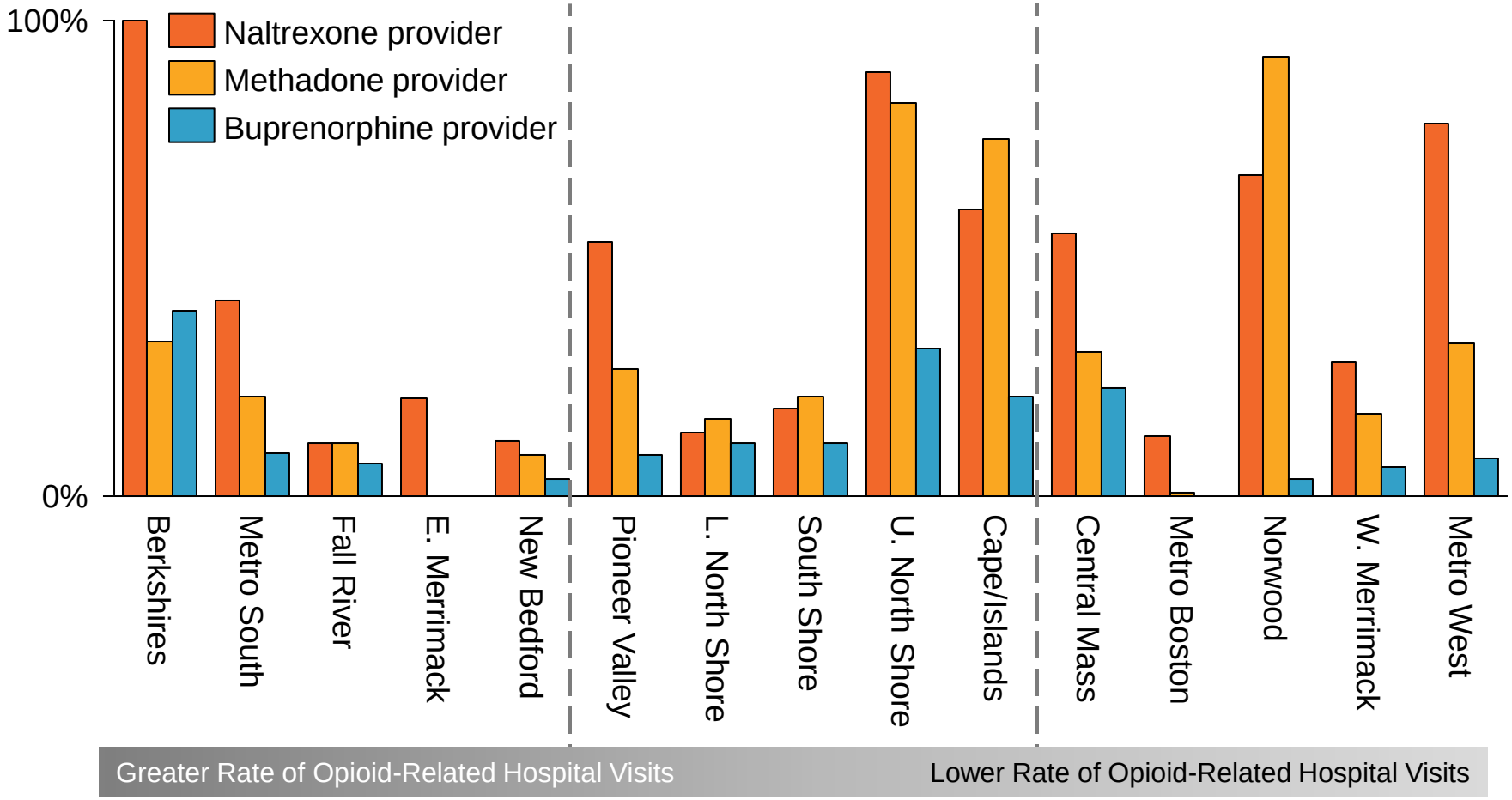
Patients with opioid-related hospital visits often must travel more than 5 miles to access MAT



Note: Travel distances are defined as the distance between the patient's zip code of residence and the zip code of the nearest in-state provider.

Sources: HPC analysis-CHIA Hospital Inpatient Discharge Database and Emergency Department Database, 2014

Methadone: Substance Abuse and Mental Health Services Administration. Opioid Treatment Program Directory (data retrieved from http://dpt2.samhsa.gov/treatment/directory.aspx on 11/20/2015)

Buprenorphine: Substance Abuse and Mental Health Services Administration. Buprenorphine Treatment Physician Locator (data retrieved from http://www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator on 11/5/2015)

Naltrexone: Prescriber lists provided by Alkermes Pharmaceuticals (data received on 8/20/2015)

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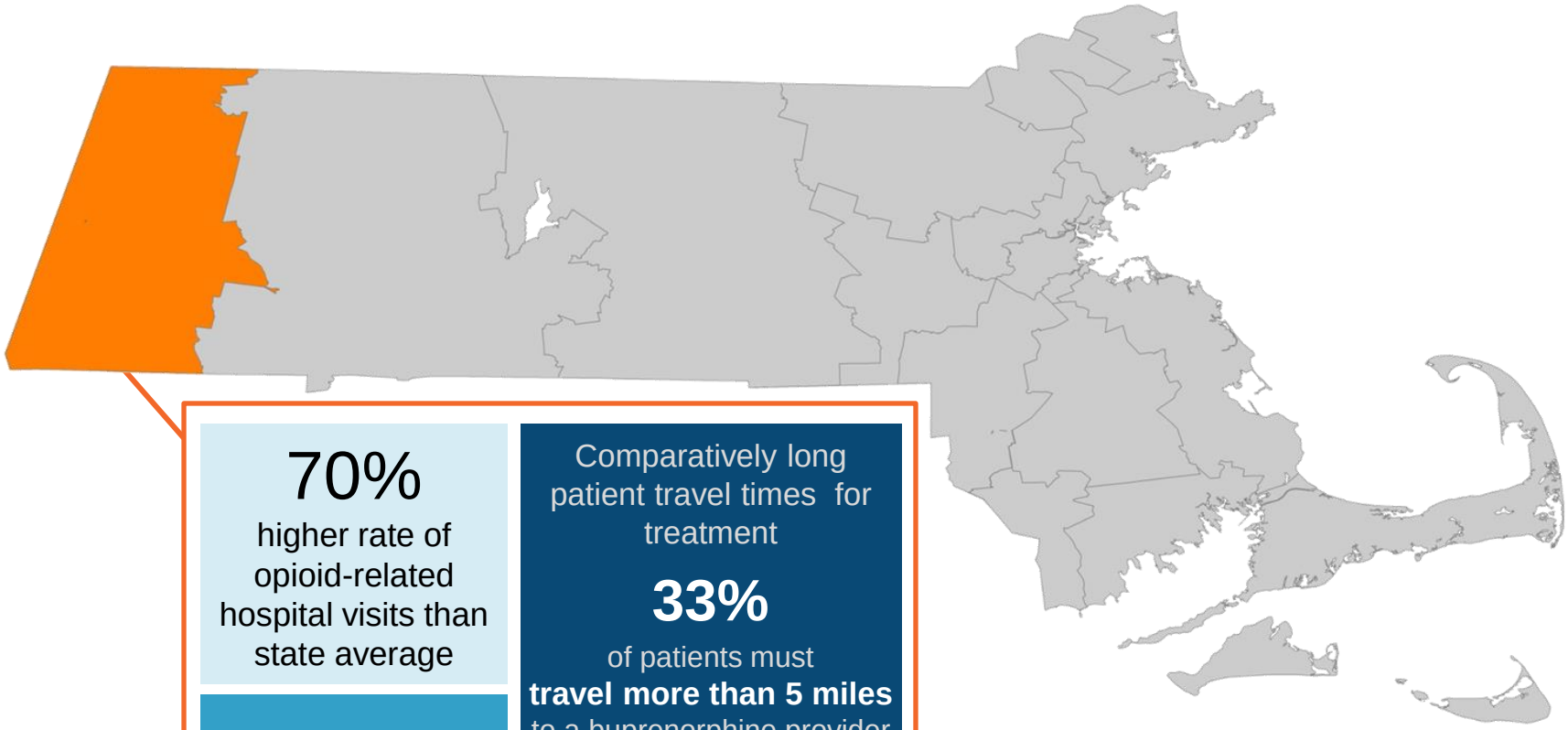
Of the Commonwealth's 15 regions, the Berkshires region has the highest rate of opioid-related hospital visits



70%
higher rate of opioid-related hospital visits than state average

No naltrexone providers

Comparatively long patient travel times for treatment

33%
of patients must **travel more than 5 miles** to a buprenorphine provider

39%
of patients must **travel more than 5 miles** to methadone clinic

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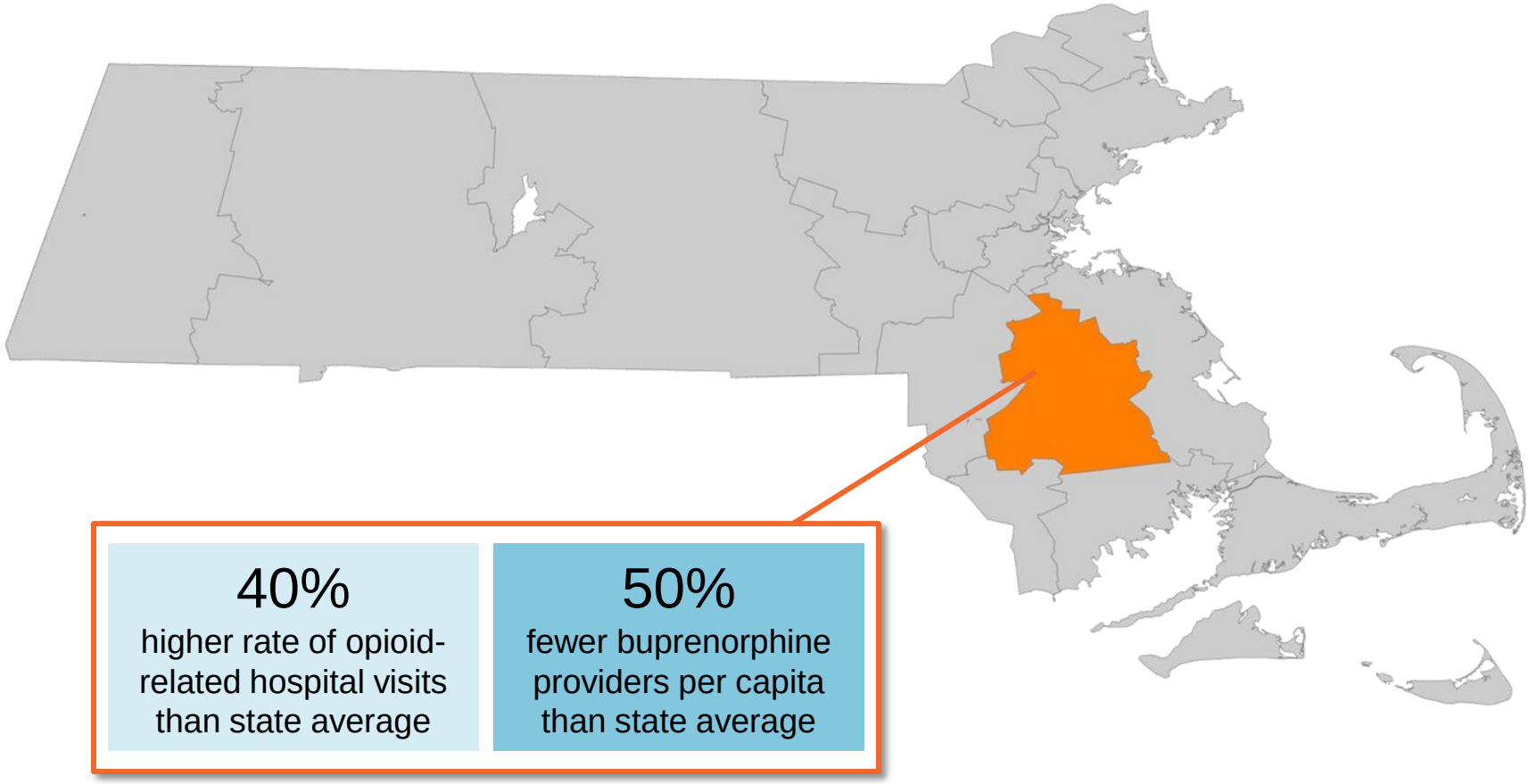
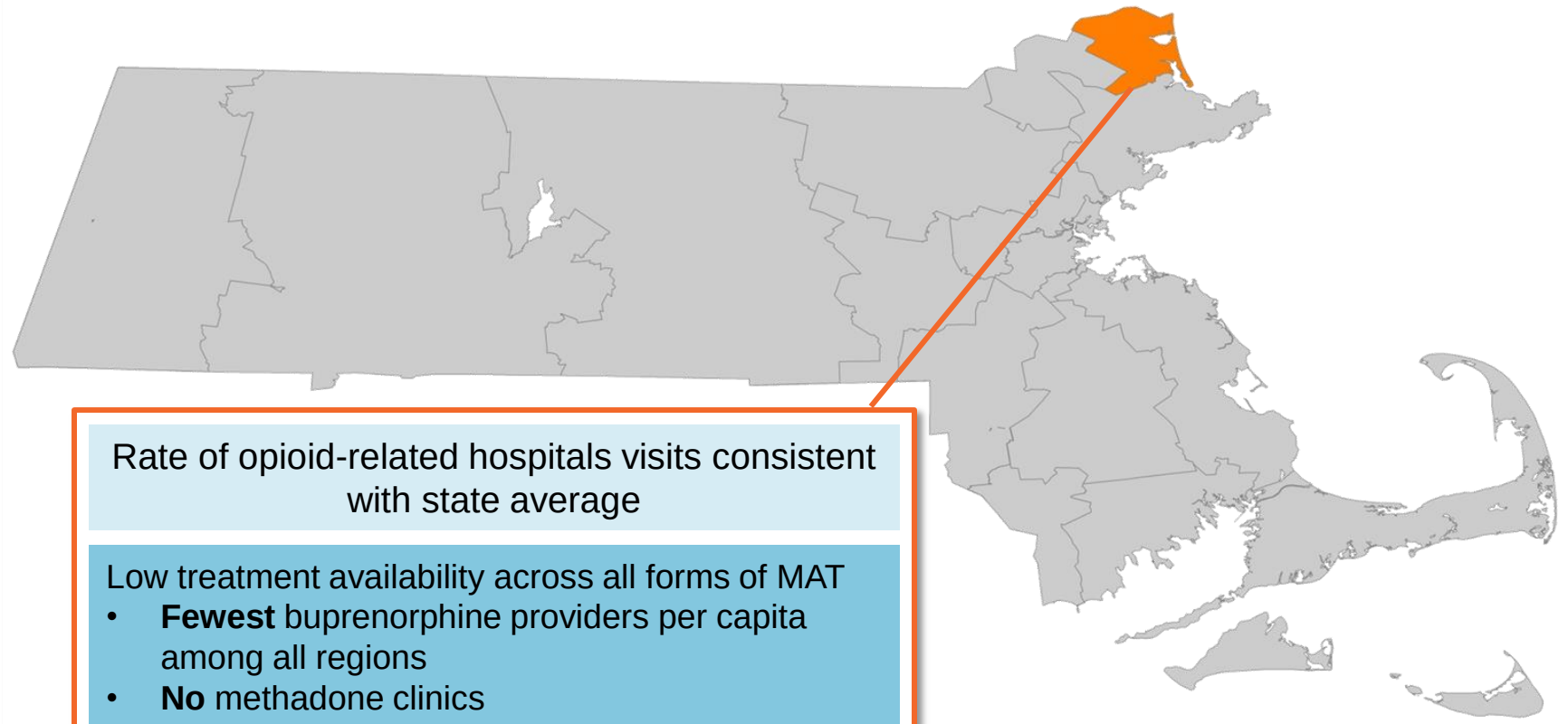
Compared to the state average, Metro South has a 40% higher rate of opioid-related hospital visits and half the number of buprenorphine providers



40%
higher rate of opioid-related hospital visits than state average

50%
fewer buprenorphine providers per capita than state average

The Upper North Shore has the lowest availability of MAT, resulting in significant travel times for many patients



Rate of opioid-related hospitals visits consistent with state average

Low treatment availability across all forms of MAT

- **Fewest** buprenorphine providers per capita among all regions
- **No** methadone clinics
- **No** naltrexone providers

Comparatively long patient travel times for treatment

31% of patients **must travel more than 5 miles** to a buprenorphine provider

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Many CHART Phase 2 programs focus on interventions for patients with opioid dependence

Berkshire Medical Center

- **Suboxone Bridge Program** facilitates engagement with buprenorphine and enrollment in day treatment program upon discharge from detoxification hospital admission

BID – Plymouth

- Integrated social work within its ED to provide **assessment, crisis intervention, and follow-up** for patients presenting with SUD
- Partnership with **Clean Slate Centers** to provide outpatient **MAT** upon discharge from ED
- Collaboration with the **Plymouth Police Overdose OUTREACH** (Opioid User Taskforce to Reduce Epidemic And Care Humanely) Program to provide outreach and services to patients that have overdosed
- Partnership with the **Plymouth Drug and Mental Health Court** to provide jail pre-release interventions

Hallmark Health

- Interdisciplinary Collaborative Outreach and Adaptable Care at Hallmark Health (COACHH) team partnered with Melrose Fire/Rescue to receive **early notification of overdose patients**.
- Hallmark is developing a partnership with **DCF** to coordinate case management of **mothers of substance exposed newborns**.

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[1]This slide provides a sample of CHART initiatives focusing interventions for patients with opioid dependence and is not exhaustive.

Many CHART Phase 2 programs focus on interventions for patients with opioid dependence

Harrington Memorial Hospital

- Implemented an **integrated care model** in the ED to screen patients, coordinate with ED clinicians, and refer patients to treatment and social workers/care navigators in the community.
- Created a Partial Hospitalization Program to provide intensive services for patients with co-occurring substance abuse and mental health diagnoses.
- Partnership with **Dudley District Court** to provide clinical support and case management for patients with opioid related cases.

HealthAlliance Hospital

- HealthAlliance Hospital reengineered its ED workflow, including screening and engaging patients using **SBIRT**
- Health Integrated Collaborative Case Coordination (HIc3) team. HIc3Team initiates services immediately following discharge from the ED or hospital, including coordination across multiple partners and agencies, linkages to primary and behavioral care, and care planning

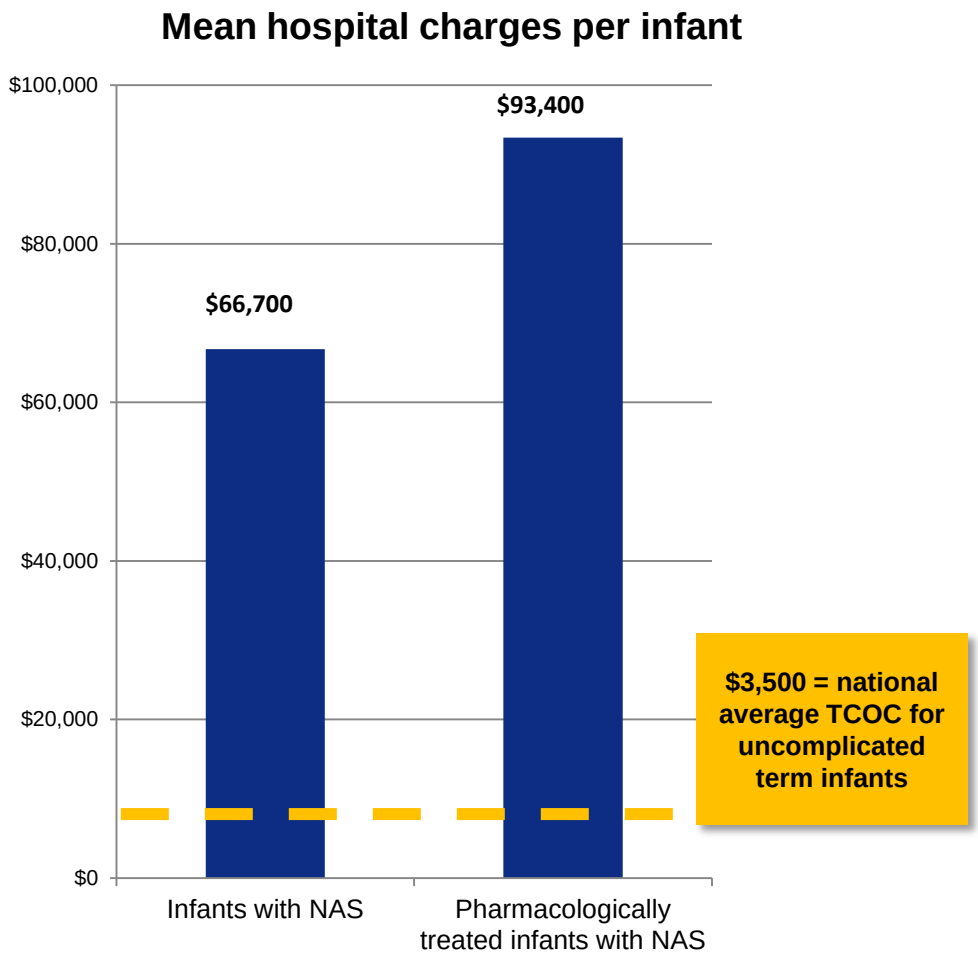
HPC

[1]This slide provides a sample of CHART initiatives focusing interventions for patients with opioid dependence and is not exhaustive.

Neonatal Abstinence Syndrome (NAS)

Neonatal Abstinence Syndrome (NAS)

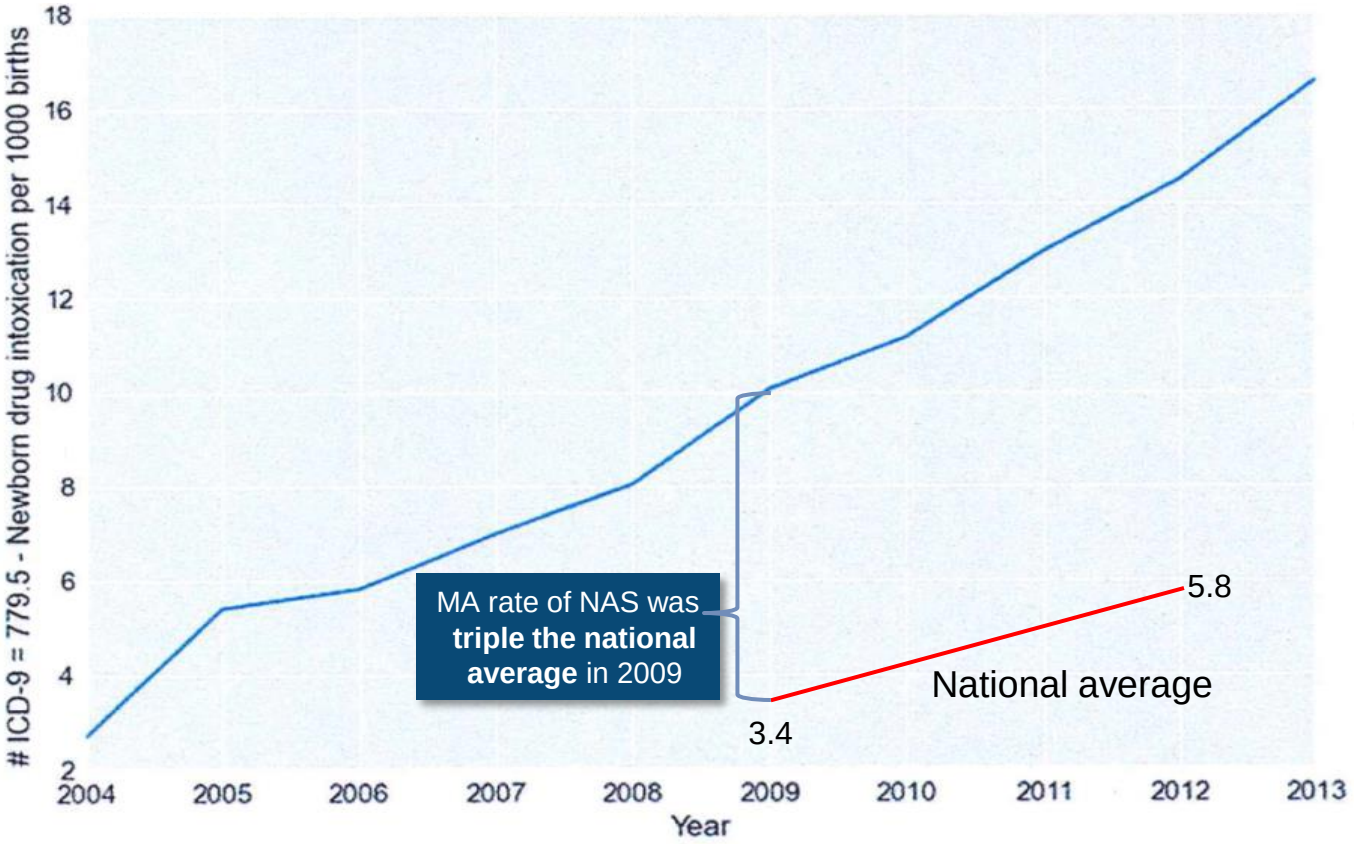
Clinical diagnosis resulting from exposure to opioids in utero marked by low birth weight, respiratory distress, feeding difficulty, tremors, increased irritability and crying, diarrhea, and occasionally seizures



Graph Source: Patrick SW, Davis MM, Lehman CU, Cooper WO. Increasing incidence and geographic distribution of neonatal abstinence syndrome: Unites States 2009 to 2012. Journal of Perinatology. 2015; doi: 10.1038/jp.2015.36. [Epub ahead of print]

Rate of NAS is increasing significantly in Massachusetts

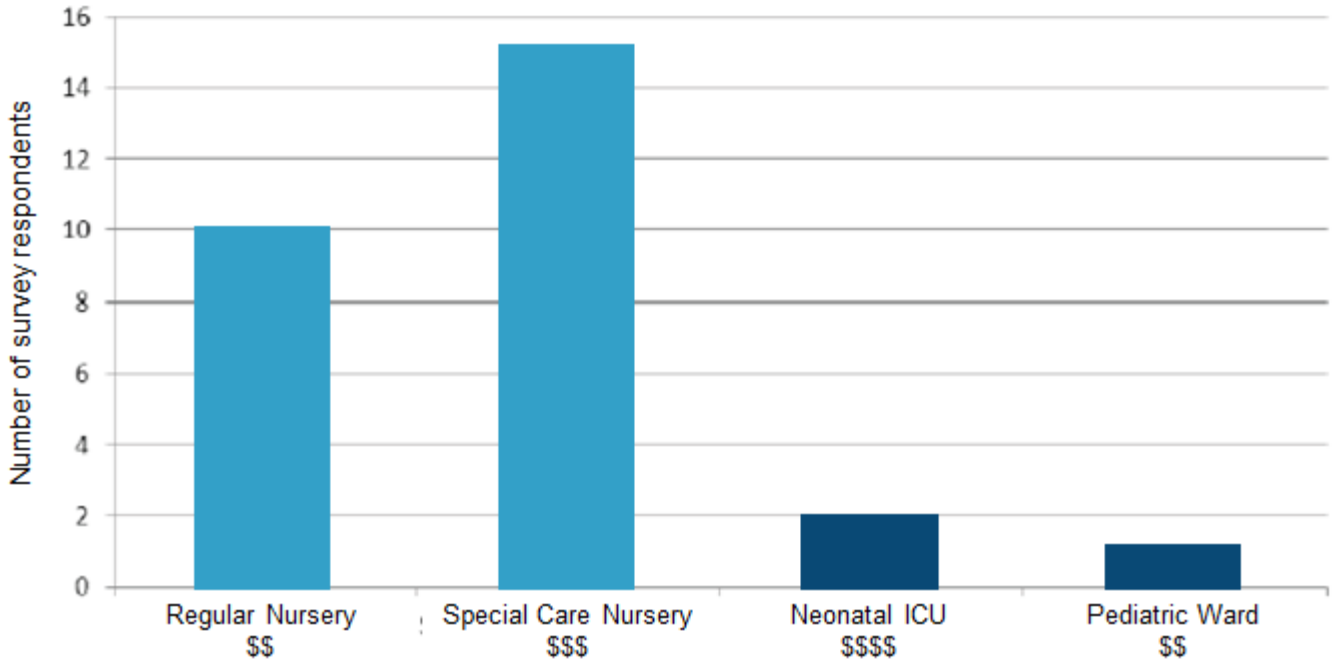
From 2004 to 2013 the Incidence of NAS increased from <3/1000 hospital births to **>16/1000 hospital births** per year



Sources:

1. Gupta M and Picarillo A. Neonatal abstinence syndrome (NAS): improvement efforts in Massachusetts. neoQIC. January 2015. PowerPoint presentation.
2. Patrick S, Davis M, Lehman C, Cooper W. Increasing incidence and geographic distribution of neonatal abstinence syndrome: Unites States 2009 to 2012. Journal of Perinatology 2015; doi: 10.1038/jp.2015.36. [Epub ahead of print]

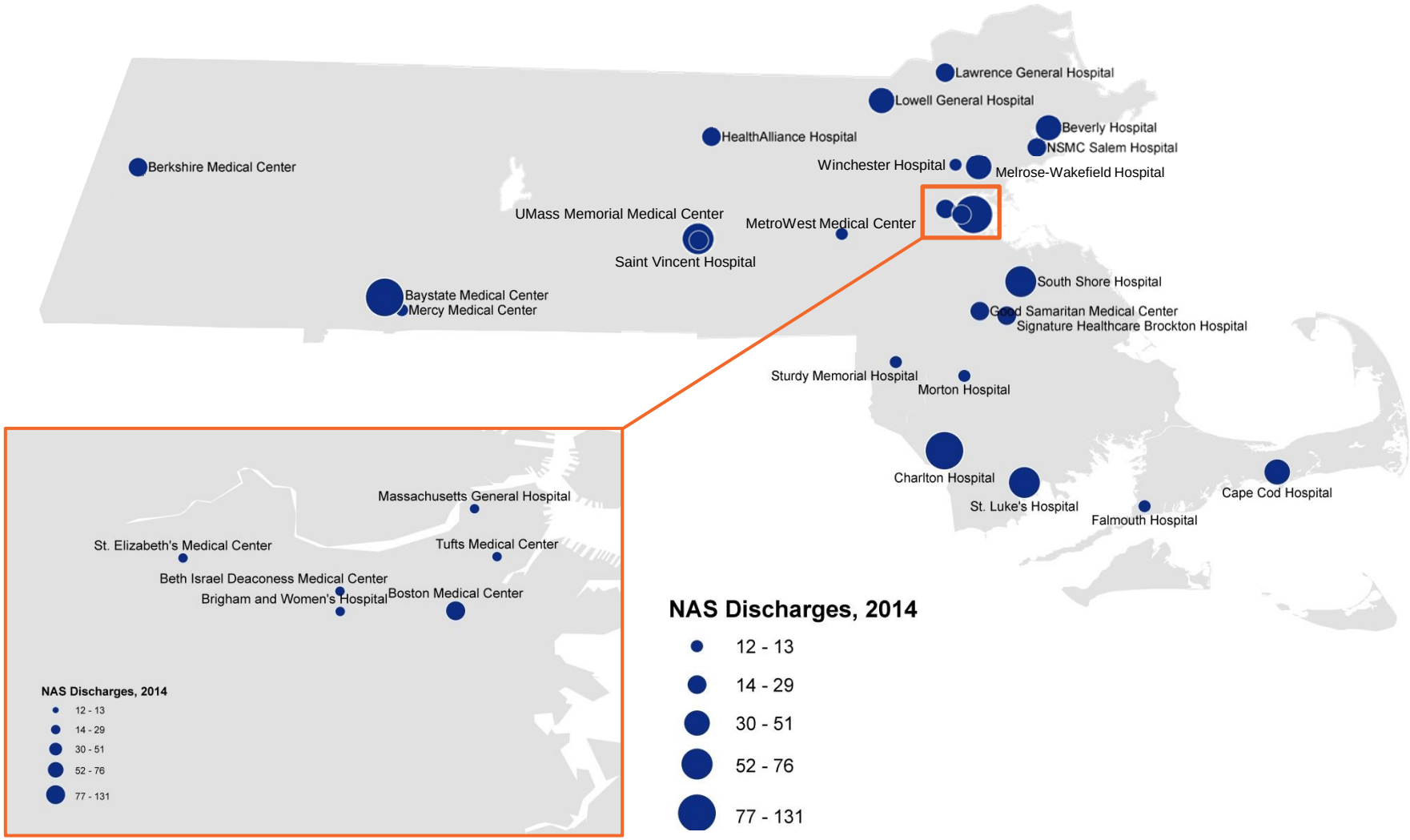
NAS is most frequently treated in higher cost settings in Massachusetts



Relative Cost of Care Setting		
	$$$$	NICU
	$$$	Special care nursery
	$$	Regular nursery/pediatric floor
	$	Outpatient

Source: Gupta M, & Picarillo A. "Neonatal abstinence syndrome: a statewide improvement initiative." Massachusetts Perinatal Quality Collaborative. November 13, 2013.

NAS discharge volume by hospital



Source: Massachusetts Health Data Consortium (MDHC) 2014 hospital data – Only includes hospitals with 12 or more NAS discharges

Neonatal Abstinence Syndrome (NAS) Investment Opportunity

$3,500,000 → **Eligible birthing hospitals**

Summary

The NAS Investment Opportunity provides funding for inpatient and outpatient initiatives to eligible birthing hospitals in MA to develop and/or enhance evidence-based programs designed to improve care for infants with NAS and for women in treatment for opioid use disorder during and after pregnancy.

This model will provide additional funding for engagement and retention in treatment efforts, to be directly administered by DPH through an Interdepartmental Service Agreement (ISA). This expands a DPH led initiative that coordinates addiction services during pregnancy and for the first 6 months post-hospital discharge.

Objectives

1. **Identify emerging best practices** around inpatient treatment of and post-discharge follow-up on NAS; **Coordinate SUD treatment for mothers;** and **Extend the reach** of a federal grant awarded to DPH
2. **Reduce LOS** associated with NAS by increasing adoption of best practices (e.g., breastfeeding, rooming-in protocols); **Reduce costs** while ensuring readmission rates also decline; and **Increase the use of best practices** across MA

Key Dates

Information Sessions:
March 25, 2016 (Webinar)

Proposals Due:
May 13, 2016

Anticipated Awardee Announcements:
July 2016

Anticipated Period of Performance:
Category A: October 2016 to December 2017
Category B: October 2016 to December 2018

HPC

Joint HPC/DPH initiative allows for interventions to be applied across broader spectrum of continuum

HPC Pilot Program
Funded through FY16 State Budget
$500,000

DPH "Moms Do Care"
Program Funded through a federal grant
$3,000,000

HPC/DPH Expansion
Funded through CHART Investment Program to expand DPH's work
$3,000,000

HPC opioid abuse report – Next steps

HPC is issuing a report, including the preliminary data presented today, pursuant to chapter 258.

A draft report will be presented to this committee in an upcoming meeting.

Opioid Abuse Report includes

- Spotlight on: 1) availability of MAT and 2) dissemination of emerging and best practices regarding the treatment of NAS;
- Focused recommendations to further alleviate the opioid crisis in MA; and
- Compilation of all recommendations produced across the state to address the epidemic (e.g., Governor's Opioid Working Group, Special Senate Committee on Opioid Addiction Prevention, Treatment, and Recovery Options, CHIA's Access to SUD treatment report).

Contact Information

For more information about the Health Policy Commission:

Visit us: http://www.mass.gov/hpc

Follow us: @Mass_HPC

E-mail us: HPC-Info@state.ma.us

ICD-9-diagnosis codes used in HPC and DPH opioid-related hospital visit analyses

ICD-9-CM diagnosis code	Description	HPC	DPH
304	OPIOID DEPENDENCE-UNSPECIFIED	X	
304.01	OPIOID DEPENDENCE-CONTINUOUS	X	
304.02	OPIOID DEPENDENCE-EPISODIC	X	
304.03	OPIOID DEPENDENCE, IN REMISSION	X	
304.7	OPIOID OTHER DEP-UNSPECIFIED	X	
304.71	OPIOID OTHER DEP-CONTINUOUS	X	
304.72	OPIOID OTHER DEP-EPISODIC	X	
304.73	OPIOID OTHER DEP-IN REMISSION	X	
305.5	OPIOID ABUSE-UNSPECIFIED	X	
305.51	OPIOID ABUSE-CONTINUOUS	X	
305.52	OPIOID ABUSE-EPISODIC	X	
305.53	OPIOID ABUSE-IN REMISSION	X	
965	OPIUM POISONING	X	X
965.01	HEROIN POISONING	X	X
965.09	POISONING BY OTHER OPIATES AND RELATED NARCOTICS	X	X
E850.0	ACCIDENTAL POISONING BY HEROIN	X	X
E850.2	ACCIDENTAL POISONING BY OTHER OPIATES AND RELATED NARCOTICS	X	X
E935.0	ADVERSE EFFECTS OF HEROIN	X	
E935.2	OTHER OPIATES AND RELATED NARCOTICS CAUSING ADVERSE EFFECTS IN THERAPEUTIC USE	X	

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Note: HPC's methodology is adapted from a method developed by AHRQ (http://www.ncbi.nlm.nih.gov/books/NBK246983/), but adds diagnoses related to heroin