MASSACHUSETTS
HEALTH POLICY COMMISSION

Health Policy Commission Board Meeting

November 20, 2019

MASSACHUSETTS
HEALTH POLICY COMMISSION

AGENDA

- **Call to Order**
- Approval of Minutes from September 11, 2019 Meeting (**VOTE**)
- Executive Session: Performance Improvement Plan Discussion (**VOTE**)
- Market Oversight and Transparency
- Care Delivery Transformation
- Schedule of Next Meeting **(Monday, December 16, 2019)**

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MASSACHUSETTS
HEALTH POLICY COMMISSION

VOTE: Approving Minutes

MOTION: That the Commission hereby approves the minutes of the Commission meeting held on **September 11, 2019** as presented.

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HEALTH POLICY COMMISSION

VOTE: Enter into Executive Session

MOTION: That, having first convened in open session at its November 20, 2019 board meeting and pursuant to G.L. c. 30A, § 21(a)(7), the Commission hereby approves going into executive session for the purpose of complying with G.L. c. 6D, § 10 and its associated regulation, 958 CMR 10.00, G.L. c. 6D, § 2A, and G.L. c. 12C, § 18, in discussions about whether to require performance improvement plans by entities confidentially identified to the Commission by the Center for Health Information and Analysis.

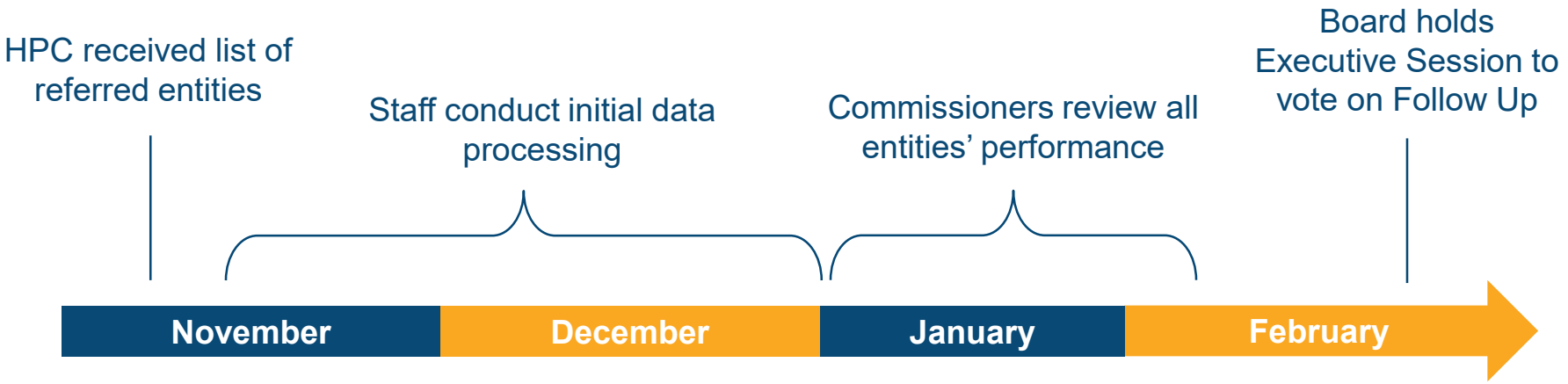
Performance Improvement Plans

Conclusion of 2015-2016 Cycle

- During today's Executive Session, the Board considered the performance of select entities that were referred by CHIA based on their **2015-2016 spending growth** and voted not to require a PIP from any entity.

Start of 2016-2017 Cycle

- CHIA recently referred entities to the HPC based on their **2016-2017 spending growth**. The HPC will conduct its initial review and share its findings with Commissioners over the next several weeks.



All dates are approximate.

HPC Entity Review Process

Commissioner Engagement Throughout

1. **Initial Review of All Referred Entities**

Examples of Factors Examined

Performance across all books of business, including those not referred by CHIA
- HSA TME
- Unadjusted TME
- Risk score

(level, growth, comparison to peers)

Entity size and market share

Relative Price

Previous appearance on CHIA's list

Factors outside of entities' control

2. **Board Deliberation and Vote to Follow Up with Some Entities**

3. **Meet with Follow Up Entities and Gather More Data**

4. **Board Deliberation and Vote to Advance to Final Review**

5. **Additional Follow-up and Analysis**

6. **Board Deliberation and Vote Whether to Require PIP**

If Board Votes to PIP, Implementation Begins

HPC

Key Themes in 2015-2016 Review

Risk score growth

Consistent with past trends, increasing risk scores depressed the rate of HSA TME growth compared with unadjusted spending growth, thereby **masking the real-dollar impact** of some payers and providers.

Membership churn

Several health plans and provider contracts had **significant changes in member months**, making year-to-year comparisons of performance difficult.

External factors

Payers and providers may **face challenges** in addressing some factors driving spending growth:

- Pharmacy spending (e.g. Hep C medication)
- Leakage to high-priced providers
- High-cost outlier cases

HPC

Reflections on the Performance Improvement Plan Process

Strengths

- The PIPs process is a powerful tool that the HPC can use to **hold individual entities accountable.**
- The HPC's oversight creates an **incentive to limit spending growth.**
- Through the PIPs process, the **HPC has gained significant insight** into market trends and entities' cost control strategies.
- Even without a PIP being required, **entities may make certain cost containment commitments** as part of the review process.

Limitations

- The **scope of referable entities is limited to primary care provider groups**, including all spending for their patients. It does not include several important entities such as hospitals or drug manufacturers.
- The referral criteria are based on HSA TME changes which allows some entities with **high *real-dollar* spending growth** or **high baseline spending *levels*** to avoid referral.
- The HPC **cannot require** a PIP to include **specific goals** or **strategies.**

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Types of Transactions Noticed

TYPE OF TRANSACTION	NUMBER	FREQUENCY
Physician group merger, acquisition, or network affiliation	23	21%
Clinical affiliation	23	21%
Acute hospital merger, acquisition, or network affiliation	22	21%
Formation of a contracting entity	20	19%
Merger, acquisition, or network affiliation of other provider type (e.g., post-acute)	13	12%
Change in ownership or merger of corporately affiliated entities	5	5%
Affiliation between a provider and a carrier	1	1%

Notices Currently Under Review

- Proposed acquisition of **Exeter Health Resources** (EHR) by **Partners HealthCare System** (Partners). EHR serves the Seacoast Region of southern New Hampshire and Maine and includes an acute care hospital, Exeter Hospital, a multi-specialty physician practice, Core Physicians, and a visiting nurse association and hospice.

Received Since 9/11

- Proposed joint venture between **Baystate Medical Center** (Baystate) and **Greater Springfield Surgery Center** (GSSC), an ambulatory surgery center located in Springfield, under which Baystate would acquire 51% of GSSC.

- Proposed merger between two federally qualified health centers, **East Boston Neighborhood Health Center** (East Boston) and **South End Community Health Center** (South End), under which South End would merge into East Boston, and South End locations would become Boston Medical Center satellite locations.

Elected Not to Proceed

- Proposed partnership between **Baystate Medical Center** (Baystate) and **AmSurg Holdings** (AmSurg), under which Baystate and AmSurg would form a limited liability company (LLC), with Baystate as the 51% owner. The LLC would acquire AmSurg's current 61% ownership interest in Pioneer Valley Surgicenter (PVS), an ASC located in Springfield. The remainder of PVS would continue to be physician-owned.
  - Our analysis suggested limited scope for increases in health care spending.
  - We did not review evidence suggesting negative impacts on quality or access to care.

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CHIA's Health Plan Administrative Expenses Ratio and Medical Loss Ratio (MLR) Calculations

- CHIA's Annual Report had several slides about fully insured health plan administrative expenses/surplus in the merged market and for larger employer plans.
- CHIA provides a one-year snapshot of the all-payer ratio between claims spending and earned premiums (referred to as "premium retention" in the Annual Report).
- By state and federal law, health plans are required to spend a certain percentage of their premium revenues on clinical services and quality improvement activities. This percentage, known as the Medical Loss Ratio (MLR), is calculated based on a standard federal calculation tool looking at a three-year average of premiums, claims and expenses. If a carrier's calculation falls below statutory minimums, the carrier is required to issue rebates to covered individuals or groups.
- In using the federal MLR calculations, premium revenue is adjusted by government taxes and fees. Claims spending is adjusted by money spent on quality improvement, fraud reduction, and certain other allowed expenses.

CHIA's Health Plan Administrative Expenses Ratio and MLR

CHIA's Health Plan Administrative Expenses Ratio
(all-payer, 1 year window)

$$\frac{\text{Claims Spending}}{\text{Earned Premiums}}$$

Medical Loss Ratio
(payer specific, 3 year window)

$$\frac{\text{Claims Spending} + \text{Quality Improvement Spending} + \text{Fraud Reduction Expenses} + \text{Other Allowed Expenses}}{\text{Earned Premiums} - \text{Taxes and Fees}}$$

Aggregate of MLR Experience for All Merged Market Carriers Used to Calculate Carrier Rebates

2019 MEDICAL LOSS RATIO ("MLR") REBATE CALCULATION FORM FOR MASSACHUSETTS

CARRIER NAME:

Minimum Medical Loss Ratio for 2016	88.0%
Minimum Medical Loss Ratio for 2017	88.0%
Minimum Medical Loss Ratio for 2018	88.0%

		2016	2017	2018	Accumulated 2016/2017/2018 Experience
(A)	**Life Years**	816,109	764,947	766,481	2,347,538
(B)	**Direct Premium Earned**	4,037,659,315	3,984,882,975	4,306,628,631	12,329,170,922
(C1)	Federal and State Taxes and Licensing or Regulatory Fees [1]	110,390,492	49,368,813	94,720,681	254,479,986
(C2)	CCIIO Allowed Commissions and Broker Fees [2]	0	0	0	0
(C3)	**Total Deductions to Earned Premiums**	110,390,492	49,368,813	94,720,681	254,479,986
	Expenses to Improve Health Care Quality:				
(D1)	**Total Expenses to Improve Health Care Quality [5]**	37,511,960	41,716,386	44,358,692	123,587,039
	Claims:				
(E1)	Paid Claims as of 3/31/2019	3,726,244,552	3,578,438,285	3,710,384,049	11,015,066,886
(E2)	Unpaid Claim Reserve and Liability as of 3/31/2019	3,135,420	10,244,408	42,016,987	55,396,815
(E3)	Experience Rating Refunds Paid plus Reserves for Experience Rating Refunds				0
(E4)	Contract Reserves				0
(E5)	Contingent Benefit and Lawsuit Reserves				0
(E6)	Incurred Medical Pool Incentives and Bonuses	66,661,361	104,994,078	87,067,714	258,723,154
(E7)	Allowable Fraud Reduction Expense	4,928,395	4,149,395	2,788,317	11,866,107
(E8)	Net Healthcare Receivables	12,432,335	9,156,874	48,791,818	70,381,027
(E9)	Multi-Option Coverage Blended Rate Adjustment				0
(E10)	Intentionally Left Blank	XXXX	XXXX	XXXX	XXXX
(E11)	Reconciled payments of cost-sharing reductions	211,693,149	214,138,319	124,579,626	550,411,094
(E12)	**Total Incurred Claims as of 3/31/2019 = [E1+E2+E3+E4+E5+E6+E7-E8+E9-E11]**	3,576,844,244	3,474,530,973	3,668,885,623	10,720,260,840
	Risk Mitigation Payments Received/ (Charges Paid):				
(F1)	Federal Transitional Reinsurance Program payments on calendar year 2016 experience made or expected from HHS	59,691,458	0	0	59,691,458
(F2)	Risk Adjustment Program net payments received/ (charges) on calendar years shown above [3]	-29,070,274	8,248,787	-3,553,006	-24,374,493
(F3)	Federal Risk Corridors Program net cash payments received/ (charges) on calendar year 2016 experience as calculated consistent with CMS' risk corridor calculation form [3]	1,524,441	0	0	1,524,441
(F4)	**Total Risk Mitigation Payments / Charges = [F1+F2+F3]**	32,145,625	8,248,787	-3,553,006	36,841,405
(G)	**Medical Loss Ratio = [(D1+E12-F4)/(B-C3)]**	91.2%	89.1%	88.2%	89.5%
(H)	**Credibility Adjustment Factor**			XXXX	
(I)	**Credibility Adjusted Medical Loss Ratio = [G+H]**			XXXX	89.5%
(J)	**Rebate**	40,373,846	23,925,050	47,335,813	47,335,813
(K)	**Optional: Single Year Rebate Liability [4]**			0	XXXX
(L)	**Optional: Paid Rebate Liability [4]**			XXXX	XXXX
(M)	**Optional: Unpaid Rebate Liability [4]**			0	XXXX
(N)	**Optional: Limited Payable Rebate Amount [4]**			0	0

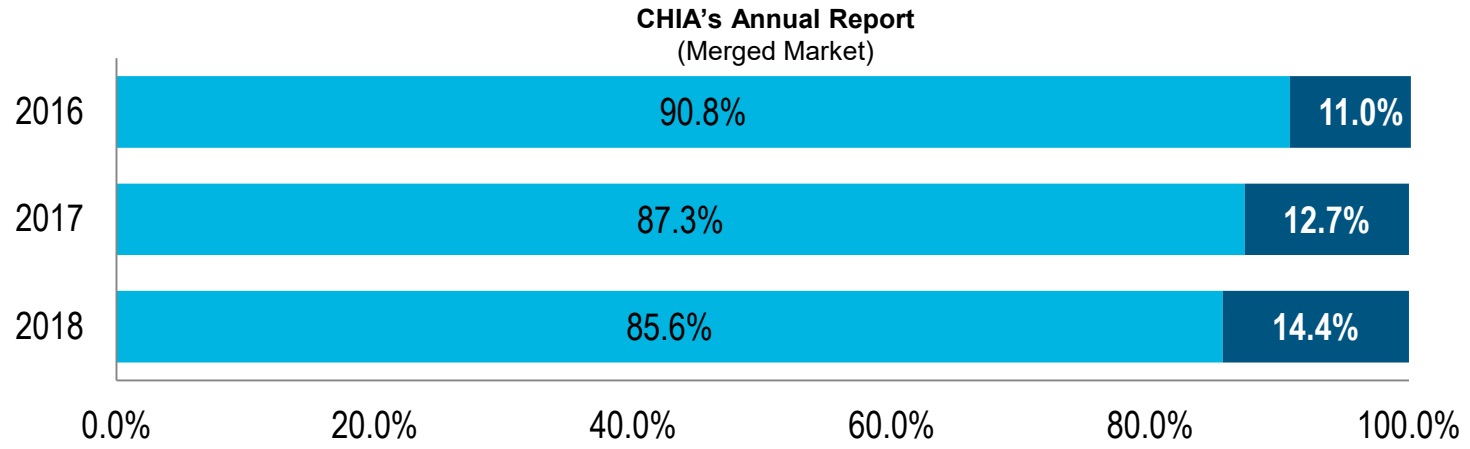
NOTE: Unless otherwise directed, please refer to CMS guidance for definitions of individual line items

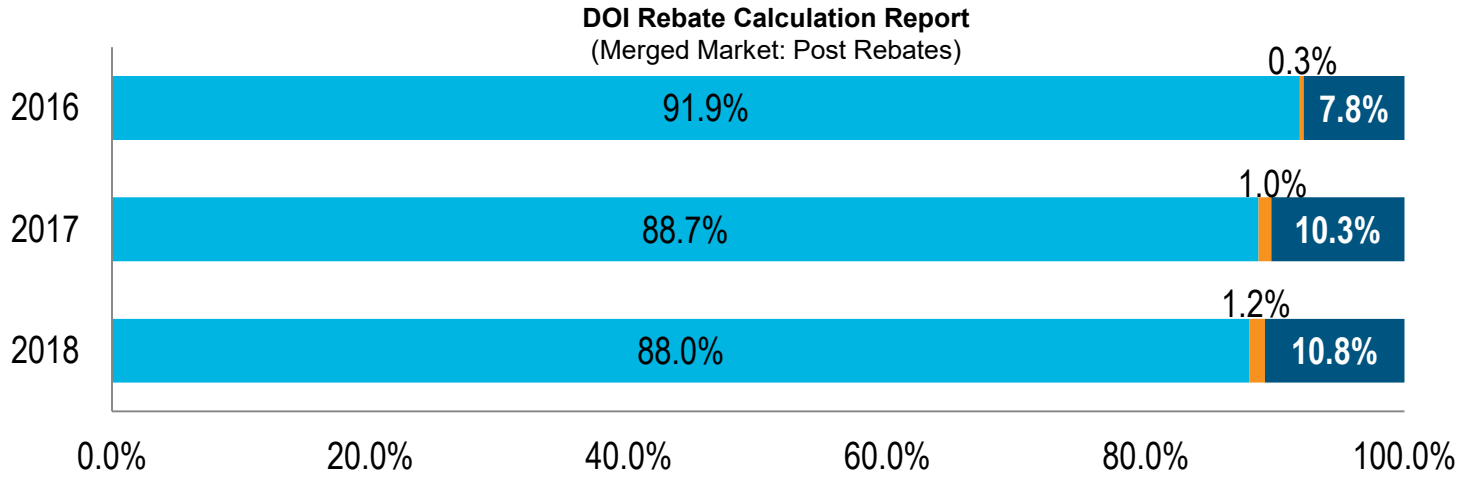
CHIA.

Final MLR After Rebates

- Using a three-year window allows MLR to account for actuarial volatility in any given year.
- As a whole, carriers had higher than normal losses in 2016 due to difficulty predicting the impact of federal risk adjustment and reinsurance programs. The experience in 2017 and 2018 is more stable as carriers have become better at predicting the impact of reinsurance and risk adjustment when setting premium rates.
- At least one health plan has had to issue MLR rebates each year from 2016-2018.
- In order to get a clear picture of market MLR, the rebates paid back to individuals and small groups should be deducted from the premium revenue when calculating MLR after rebates.

CHIA's Health Plan Administrative Expenses Ratio and MLR, 2016-2018





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Statutory Authority

Chapter 41 of the Acts of 2019, ***An Act Making Appropriations for the Fiscal Year 2020 for the Maintenance of the Departments, Boards, Commissions, Institutions and Certain Activities of the Commonwealth, for Interest, Sinking Fund and Serial Bond Requirements and for Certain Permanent Improvements***, (the "Budget") was signed by Governor Baker on July 31, 2019.

Section 46 gives the Executive Office of Health and Human Services (EOHHS), which administers the MassHealth program, authority to negotiate directly with pharmaceutical drug manufacturers for supplemental rebates. Section 6 gives the HPC the authority to investigate the manufacturer's drug pricing practices if an agreement cannot be reached.

The MassHealth Process

Direct Negotiations

MassHealth negotiates directly with a drug manufacturer for a supplemental rebate.

Proposed Value & Public Input

If negotiations fail for high cost drugs, MassHealth may propose a value for the drug and solicit public input on the proposed value for the drug.

Further Negotiations

MassHealth updates its proposed value for the drug as necessary and solicits further negotiations with the manufacturer.

Referral to the HPC

HPC

If negotiations with the manufacturer fail, MassHealth may refer the manufacturer to the HPC for review.

The HPC Process

HPC

The HPC Process

Notice & Requests for Information

HPC notifies the manufacturer that it has been referred by MassHealth for review and requests information, including completion of the Standard Reporting Form.

Review

HPC reviews information submitted by the manufacturer.

Determination

HPC may:

- Identify a proposed value for the drug;
- In consultation with MassHealth, propose a supplemental rebate for the drug;
- Determine that the manufacturer's pricing of the drug is unreasonable or excessive in relation to HPC's proposed value for the drug; or
- Close its review of the drug.

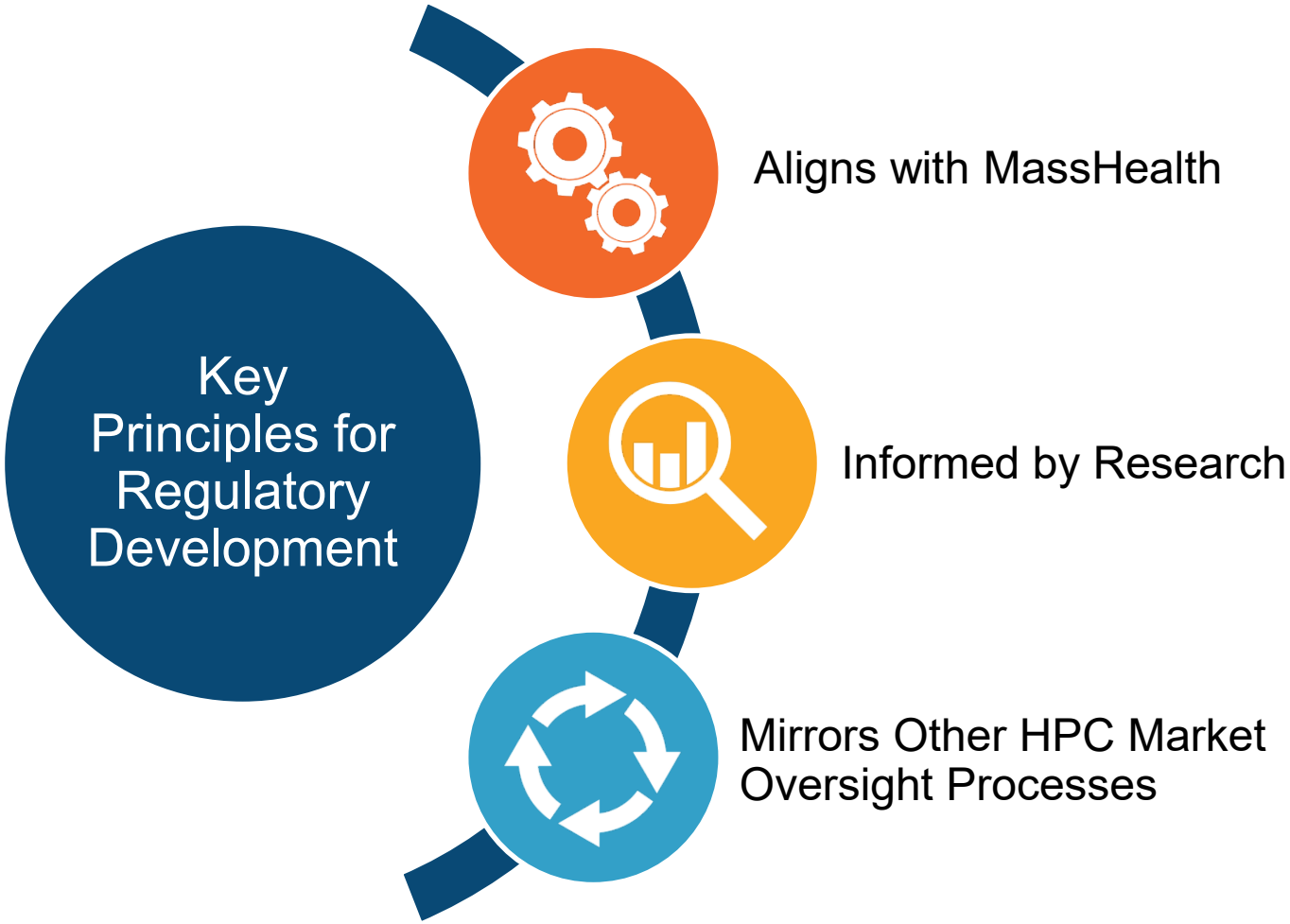
HPC determines that a manufacturer's pricing is *potentially unreasonable or excessive,* notifies the manufacturer of the need for additional review, and requests additional information, including the manufacturer's justification of its pricing of the drug.

HPC reviews information submitted by the manufacturer and solicits information from stakeholders.

Within 60 days of receiving completed information from the manufacturer, HPC issues a determination on whether the manufacturer's pricing of the drug is unreasonable or excessive in relation to HPC's proposed value for the drug.

HPC

Development of Proposed Regulation



Overview of the Regulation

Topic	Key Provisions
Applicability of Review Process	The HPC review process applies to **Manufacturers referred by MassHealth (Referred Manufacturers)**, which are: ▪ Manufacturers of Drugs covered or anticipated to be covered by MassHealth for which • negotiations with MassHealth for a supplemental rebate have been unsuccessful; and ○ the post-rebate annual cost per utilizer to MassHealth is $25,000 or more, or ○ the post-rebate aggregate annual cost to MassHealth is $10,000,000 or more.

HPC

Overview of the Regulation

Topic	Key Provisions
Submission of Information by Referred Manufacturer	Following notice, the Referred Manufacturer must submit the following information to the HPC for review: ▪ the Referred Manufacturer's analysis of the Drug's value, ▪ the Standard Reporting Form, ▪ additional information that the HPC deems necessary to its review, and ▪ additional data or information that the Referred Manufacturer considers to be pertinent to the HPC's review.
	▪ The Referred Manufacturer must submit the requested information within thirty (30) days from receipt of the HPC's request (allows for agreed upon extension of time). ▪ Each submission must be accompanied by a signed attestation that the information provided is true and correct under pains and penalties of perjury.

HPC

Overview of the Regulation

Topic	Key Provisions
Standard Reporting Form	The **Standard Reporting Form** shall include requests for information relating to the value and pricing of a Drug, including, but not be limited to: ▪ information on clinical effectiveness of the Drug; ▪ a schedule of the Drug's wholesale acquisition cost, cost increases, and price net of rebates; ▪ information to support the Referred Manufacturer's pricing of the Drug; ▪ a narrative description, suitable for public release, of factors that contributed to reported changes in wholesale acquisition cost and prices net of rebates during the previous five (5) calendar years; ▪ information on utilization of the Drug in Massachusetts and nationally; and ▪ financial information including aggregate and Drug-specific research and development, manufacturing, distribution and marketing expenditures.

HPC

Overview of the Regulation

Topic	Key Provisions
Identification of a Proposed Value	▪ Based on all the information the HPC receives, the HPC may identify a proposed value for the Drug. ▪ In identifying a proposed value, the HPC shall consider the Drug's benefits to the commonwealth and its residents, and may consider such factors as: • clinical efficacy and outcomes of the Drug, including the likelihood that the use of the Drug will reduce the need for other medical care; • the utilization or expected utilization of the Drug; • whether there are pharmaceutical equivalents of the Drug; • the Drug's net price as compared to its therapeutic benefits, including the seriousness and prevalence of the disease or condition that is treated by the Drug; • pricing of the Drug, including prices paid by other countries; • analyses by independent third parties; and • any other factors that the Commission considers relevant.

Overview of the Regulation

Topic	Key Provisions
Identification of a Proposed Supplemental Rebate	Based on the information the HPC receives from MassHealth as part of its referral and from the Referred Manufacturer, the HPC may, in consultation with MassHealth, identify a proposed supplemental rebate for the Drug.
Determination of *Potentially* Unreasonable or Excessive Pricing	After receiving the completed responses from the Referred Manufacturer, the HPC, by a vote of the Board, shall make a determination: • to close review of the Drug, or • that the Referred Manufacturer's pricing of the Drug is *potentially* unreasonable or excessive in relation to the value of the Drug as identified by the HPC and to continue review of the Drug.

HPC

Overview of the Regulation

Topic	Key Provisions
Notice of Potentially Unreasonable or Excessive Pricing and Additional Data Requests	▪ At least thirty (30) days prior to any determination that the Referred Manufacturer's pricing of the Drug is unreasonable or excessive, the HPC shall: • provide notice to the Referred Manufacturer; • provide a copy of the information, analyses or reports reviewed to the Referred Manufacturer; • request further information from the Referred Manufacturer about the pricing of the Drug, including a justification for its pricing; and • request information from other interested stakeholders, including, but not limited to, patients, providers, provider organizations, and payers. ▪ The HPC may also conduct a public hearing. ▪ The Referred Manufacturer must submit the requested information within thirty (30) days of receipt of the HPC's request (allows for agreed upon extension of time).

Overview of the Regulation

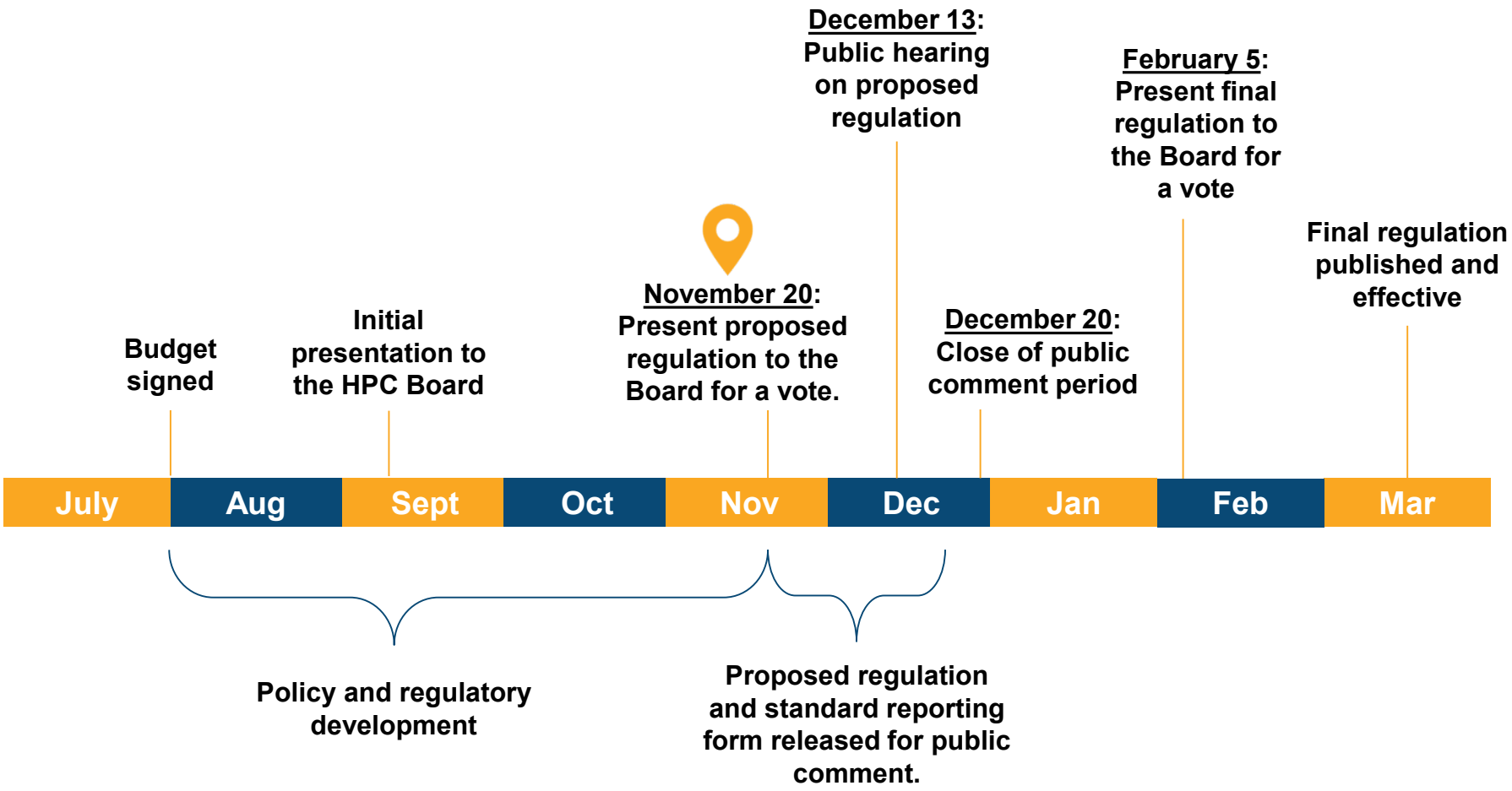
Section	Key Provisions
Determination of Unreasonable and Excessive Pricing	▪ Not later than sixty (60) days after receiving the completed information from the Referred Manufacturer, the HPC, by a vote of the Board, shall issue a determination on whether the Referred Manufacturer's pricing of the Drug is unreasonable or excessive in relation to the HPC's proposed value of the Drug. ▪ The HPC shall post a notice on its website of a determination that the Referred Manufacturer's pricing of the Drug is unreasonable or excessive in relation to the HPC's proposed value of the Drug.

HPC

Overview of the Regulation

Topic	Key Provisions
Further Negotiations with the Executive Office	▪ Nothing in the HPC process precludes a Referred Manufacturer from entering into further negotiations for a supplemental rebate with MassHealth. ▪ The HPC may close review of a Drug upon receiving a written request from MassHealth to withdraw its referral.
Confidentiality	Records disclosed by the Referred Manufacturer to the HPC in the review process shall not be a public record under M.G. L. c. 4, § 7 or M.G.L. c. 66 and shall remain confidential. Nevertheless, the HPC may disclose the narrative submitted by the Referred Manufacturer as part of its responses to the Standard Reporting Form and may produce reports summarizing any findings consistent with its responsibilities under M.G.L. c. 6D, § 8A.
Penalties	Following a hearing process, the HPC may levy fines of up to $500,000 for each instance of the Referred Manufacturer's willful non-compliance.

Regulatory Development Timeline



Public Hearing on Drug Pricing Review Regulations

SAVE THE DATE

Friday, December 13, 2019

Health Policy Commission Offices
50 Milk Street, 8th Floor
Boston, MA 02109

Hearing on EOHHS Regulation
10:00 AM – 12:00 PM

Hearing on HPC Regulation
1:00 PM – 3:00 PM

Full text of the Drug Pricing Review Regulation and the Standardized Reporting Form are available on the HPC's website.

Written comment is encouraged; please submit to HPC-Regulations@mass.gov by **5:00 PM on December 20, 2019**.

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VOTE: Proposed Drug Pricing Review Regulation

MOTION: That the Commission hereby authorizes the issuance of the PROPOSED regulation on Drug Pricing Review, pursuant to M.G.L. c. 6D, § 8A, and a public hearing and comment period on the regulation pursuant to M.G.L. c. 30A.

HPC

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2019 Annual Cost Trends Report

Main Report	Chartpack
Overview of trends in spending, care delivery, and affordability	Provider organization performance variation (spending, utilization, and low-value care)
Commercial hospital inpatient trends	Hospital utilization
Commercial hospital outpatient trends	Post-acute care
Policy recommendations and dashboard of performance metrics	Alternative payment methods

Commercial Hospital Inpatient Trends in Massachusetts

Prior work has highlighted three important trends affecting commercial inpatient hospital spending:

Rising prices (2-3% per year) holding patient acuity constant (2018 Annual Cost Trends Report)

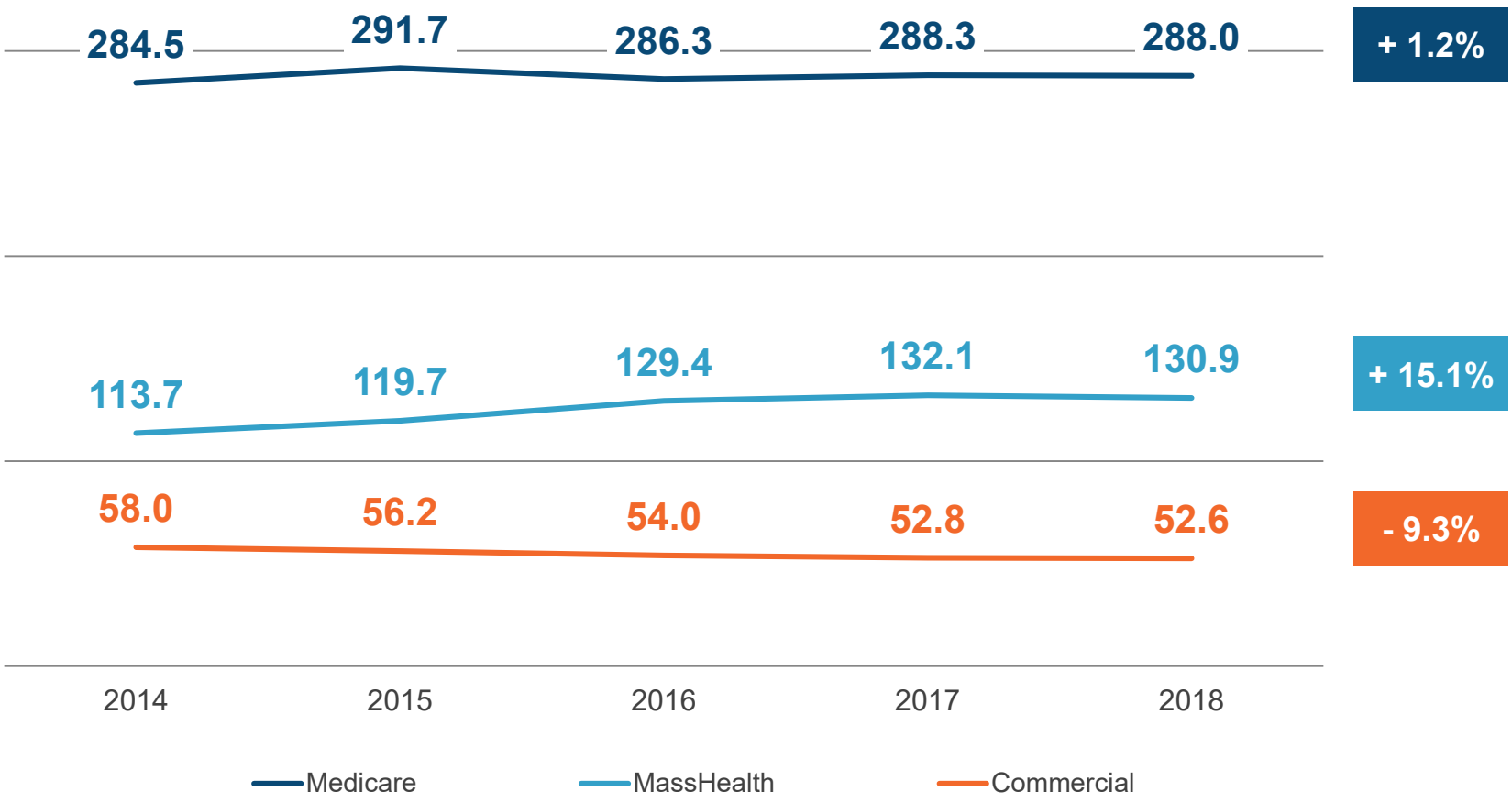
Rising patient acuity (2-3% per year), stemming in part from changes in billing and coding practices (2019 Annual Cost Trends Report - *forthcoming*)

Declining patient volume (2019 Annual Cost Trends Report - *forthcoming*)

What is behind the decrease in commercial inpatient volume?

Commercial inpatient stays declined almost 10% between 2014 and 2018.

Inpatient discharges per 1,000 population by payer, FY 2014 – FY 2018



Notes: Other payers not shown (2–3% of overall inpatient volume). All figures reflect rounding.
Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014 – FY2018

Study Approach

Research questions

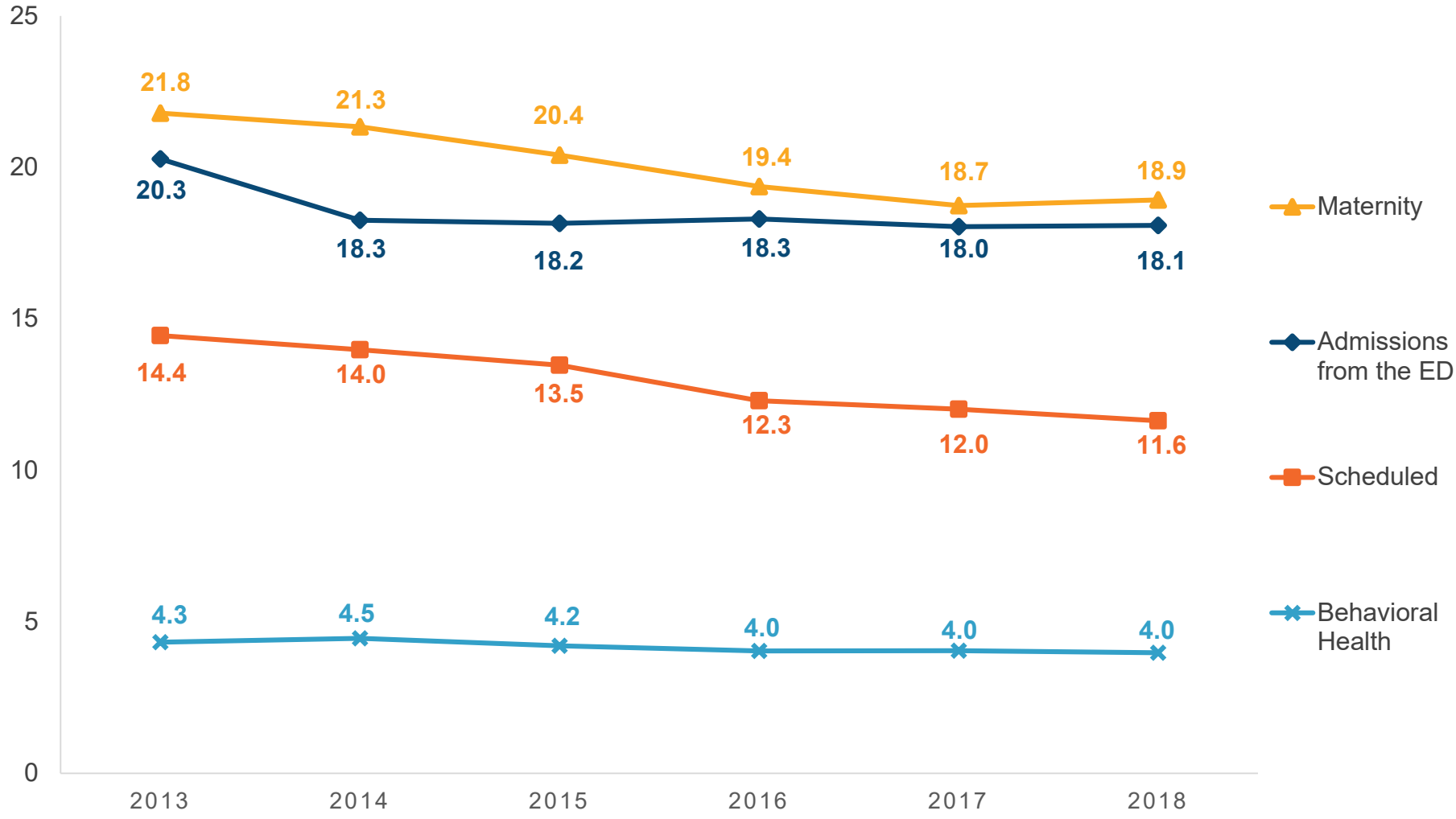
Are the volume decreases occurring across all **admission categories** and **hospital types**?

- Could a changing mix of admissions **impact the observed acuity trend**?
- What are the underlying **reasons** for the decline?
  - Changes in population health or need for inpatient care?
  - Changes in clinical practice or shifts to other sites of care?
- *Future* If there are shifts to other sites of care, what type of patients are shifting and what are the implications for spending?

HPC

Scheduled and maternity stays have declined steadily since 2013.

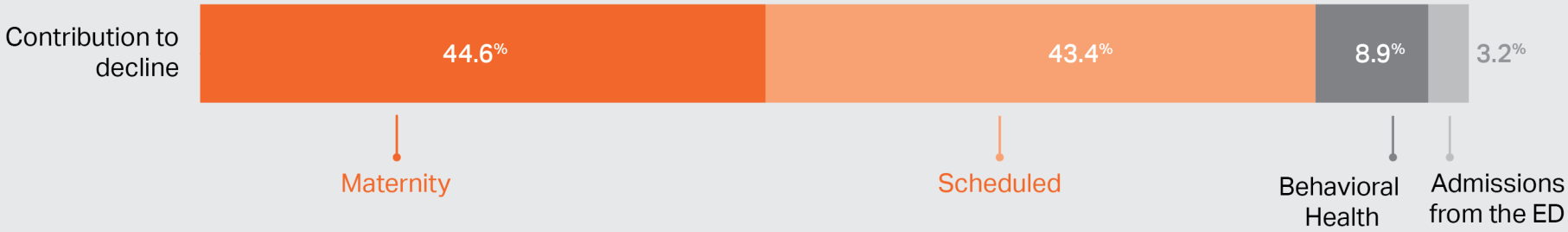
Inpatient discharges per 1,000 commercial population by type of discharge, FY 2013 – FY 2018



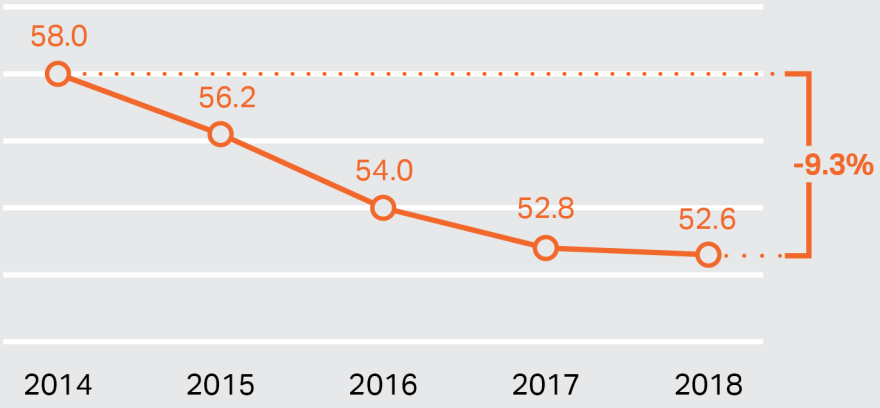
Notes: Maternity includes all discharges with a maternity DRG. ED admissions include all discharges with an ED flag or revenue code. Behavioral health discharges include all discharges with a BH diagnosis as the primary diagnosis. Scheduled includes remaining discharges. All figures reflect rounding.

Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014 – FY2018

Over 90% of the decline since 2014 is attributable to decreases in maternity and scheduled stays.



Inpatient discharges per 1,000 commercial population, FY2014 - FY2018



Commercial discharges, raw number, FY2014 - 2018

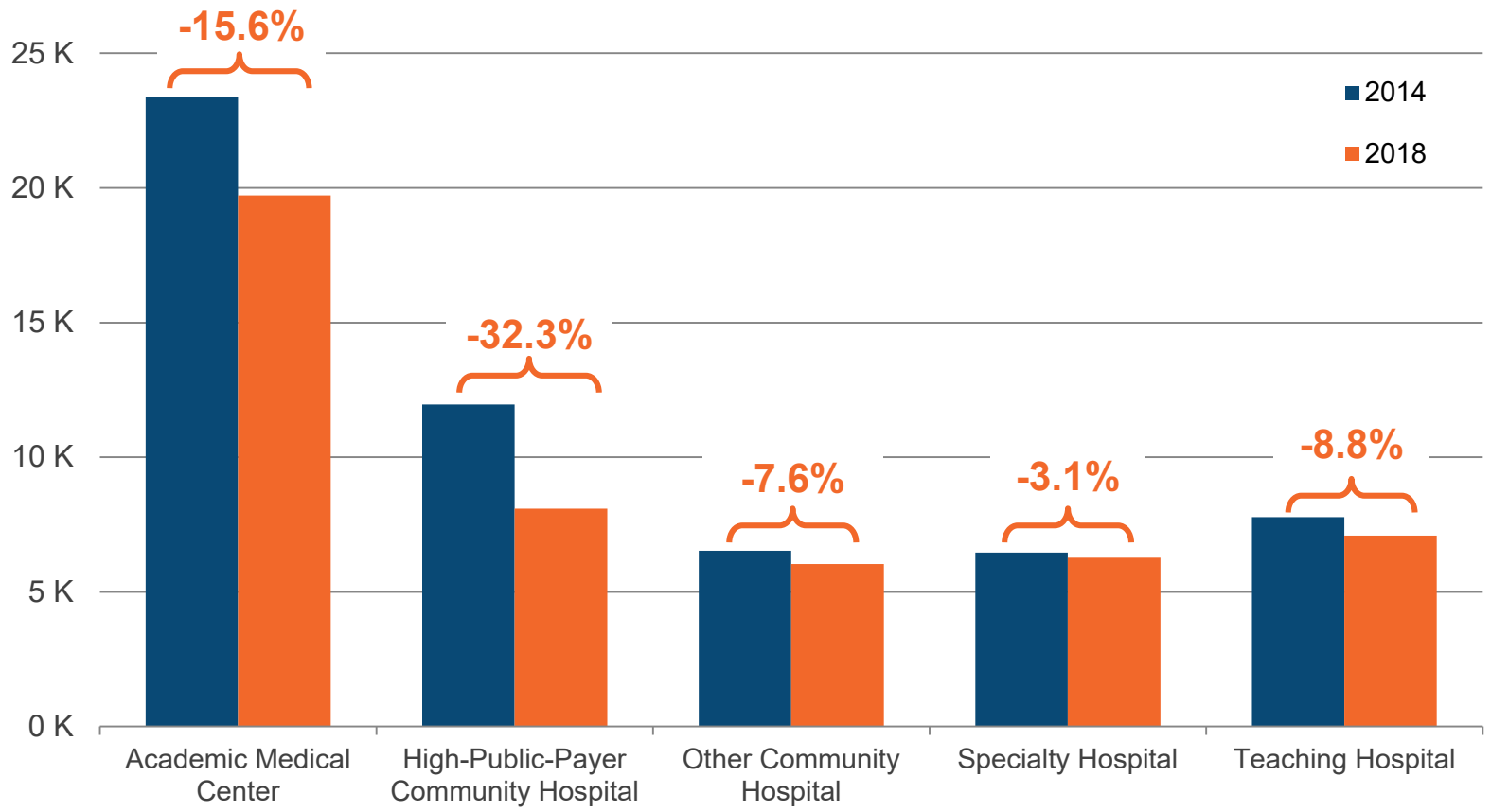
Year	Disharges	Cumulative
2014	232,856	0.0%
2015	226,564	-2.7%
2016	221,044	-5.1%
2017	215,941	-7.3%
2018	213,486	-8.3%

Notes: Maternity includes all discharges with a maternity DRG. ED admissions include all discharges with an ED flag or revenue code. Behavioral health discharges include all discharges with a BH diagnosis as the primary diagnosis. Scheduled includes remaining discharges. All figures reflect rounding.

Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014 – FY2018

The decline in scheduled commercial stays has been most significant at high-public-payer community hospitals.

Scheduled inpatient discharges by hospital cohort, FY 2014 – FY 2018

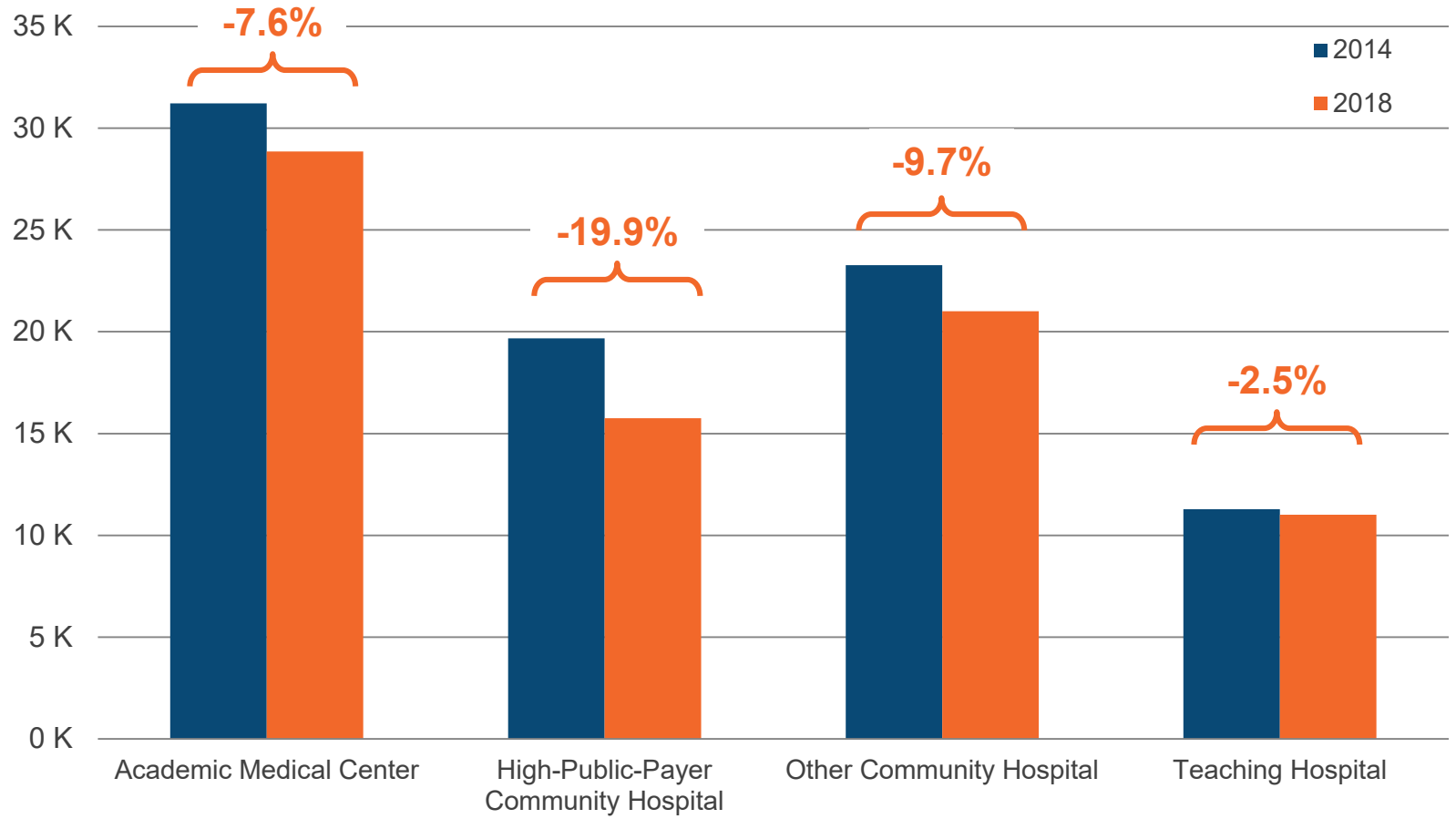


Notes: Scheduled includes all discharges that were not maternity or BH (as primary diagnosis), or where the patient was not admitted through the ED. All figures reflect rounding.

Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014 – FY2018

The decline in maternity stays has also been significant at high-public-payer community hospitals.

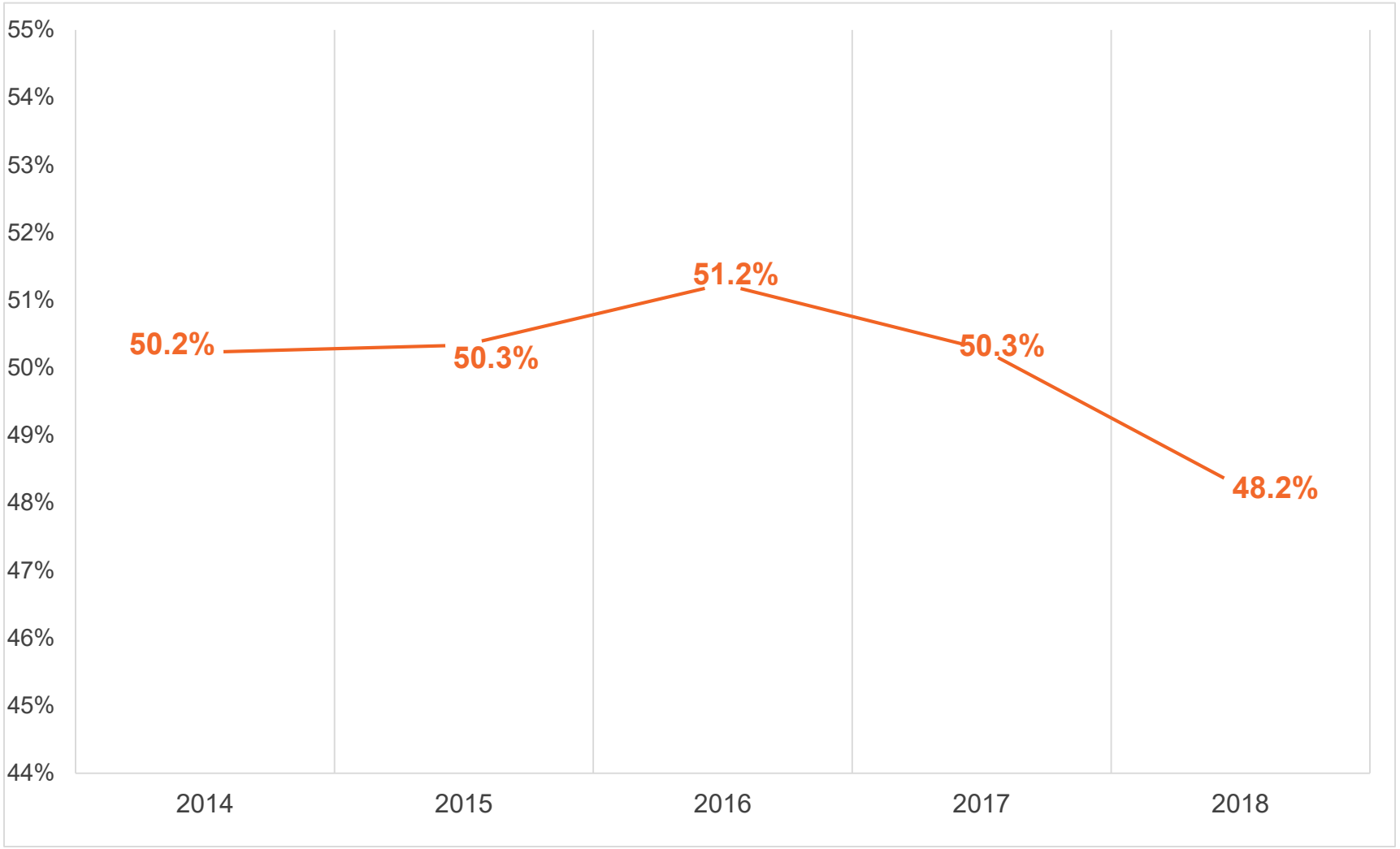
Maternity discharges by hospital cohort, FY 2014 – FY 2018



Notes: Maternity includes all discharge with Major Diagnostic Category 14 (MDC 14). All figures reflect rounding.
Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014 – FY2018

The share of privately-insured births taking place in community hospitals dropped in 2017 and 2018.

Percent of all commercial newborn discharges taking place in community hospitals, FY2014 – FY2018



Notes: Newborn includes all discharge with a newborn MDC 15.
Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014 – FY2018

Research questions

- Are the volume decreases occurring across all **admission categories** and **hospital types**?

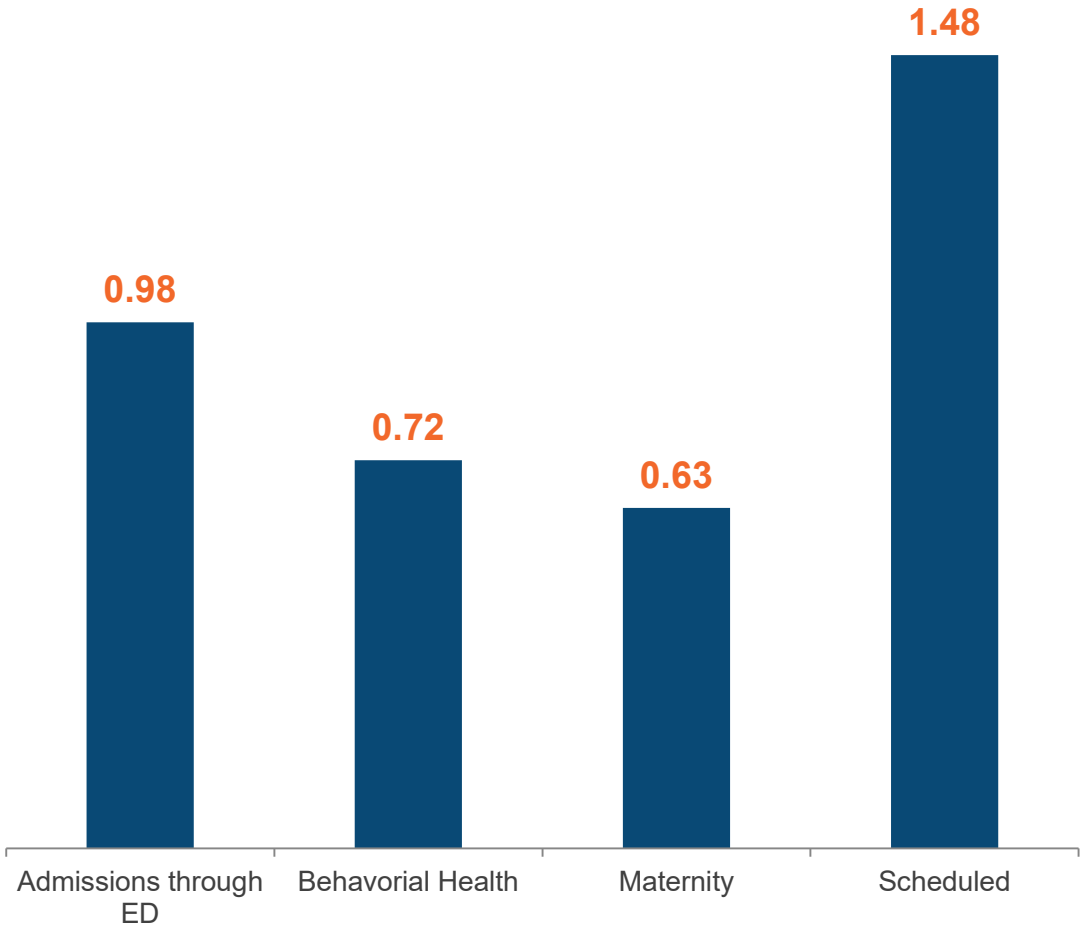
? Could a changing mix of admissions **impact the observed acuity trend**?

- What are the underlying **reasons** for the decline?
  - Changes in population health or need for inpatient care?
  - Changes in clinical practice or shifts to other sites of care?

- *Future* If there are shifts to other sites of care, what type of patients are shifting and what are the implications for spending?

Declining inpatient stays does not appear to explain rising acuity.

Average APR-DRG weight by type of admission, FY 2014



- Maternity admissions are **low-acuity**. A loss of these admissions **increases the acuity** of remaining admissions
- Scheduled admissions are **high-acuity**. A loss of these admissions **reduces the acuity** of remaining admissions
- Length of stay, ICU/CCU/NICU does not change substantially over this time period.

Notes: Average weights are calculated using the APR-DRG v30 system with publically available MH weights. These patterns are consistent when using MS-DRG weights.

Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2014

Research questions

- Are the volume decreases occurring across all **admission categories** and **hospital types**?
- Could a changing mix of admissions **impact the observed acuity trend**?
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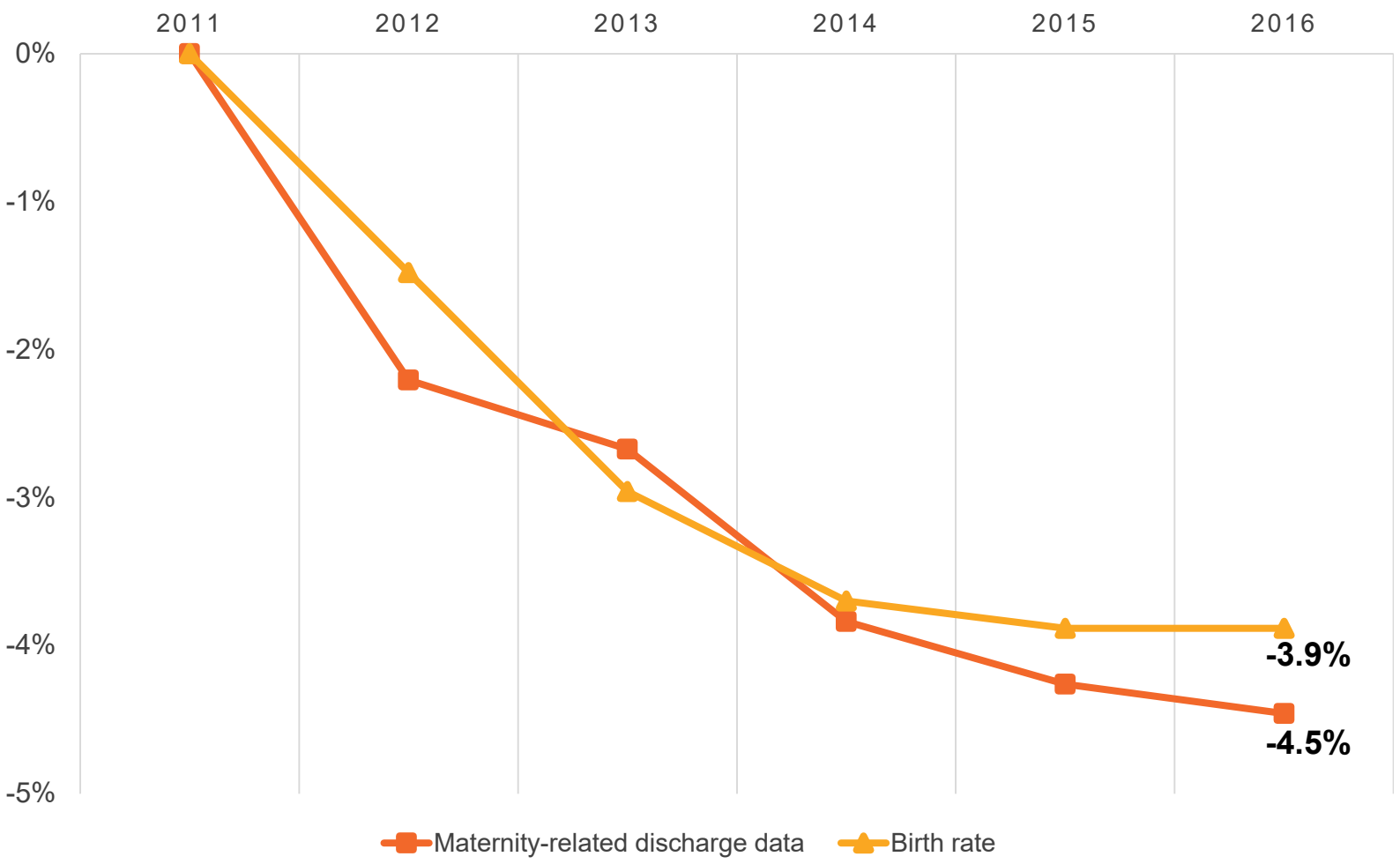
- *Future* If there are shifts to other sites of care, what type of patients are shifting and what are the implications for spending?

A decline in the birth rate explains the decline in maternity-related stays.

Percentage decline in the birth rate and maternity-related discharges, FY 2011 – FY 2016



Notes: Birth rates represent the total number of births to MA residents ages 15-44 years per 1,000 females ages 15-44, excluding three hospitals due to data quality issues (Newton-Wellesley, Saint Vincent, Winchester). Case-mix data represents maternity discharges. All figures reflect rounding.

Sources: Massachusetts DPH, Registry of Vital Records and Statistics data, 2016; CHIA HIDD, 2011-2016

Research questions

- Are the volume decreases occurring across all **admission categories** and **hospital types**?
- Could a changing mix of admissions **impact the observed acuity trend**?
- What are the underlying **reasons** for the decline?
  - Changes in population health or need for inpatient care?
  - ? Changes in clinical practice or shifts to other sites of care?
- *Future* If there are shifts to other sites of care, what type of patients are shifting and what are the implications for spending?

Changes in clinical practice and shifts to other settings appear to explain some of the decline in scheduled hospital stays.

Changes in Clinical Practice

Examples include:

- Esophagitis treated with observation and IV antibiotics, avoiding stay
- Procedure retired due to new drug (e.g. Nissen fundoplication)
- Use of antibiotics rather than surgery to treat appendicitis

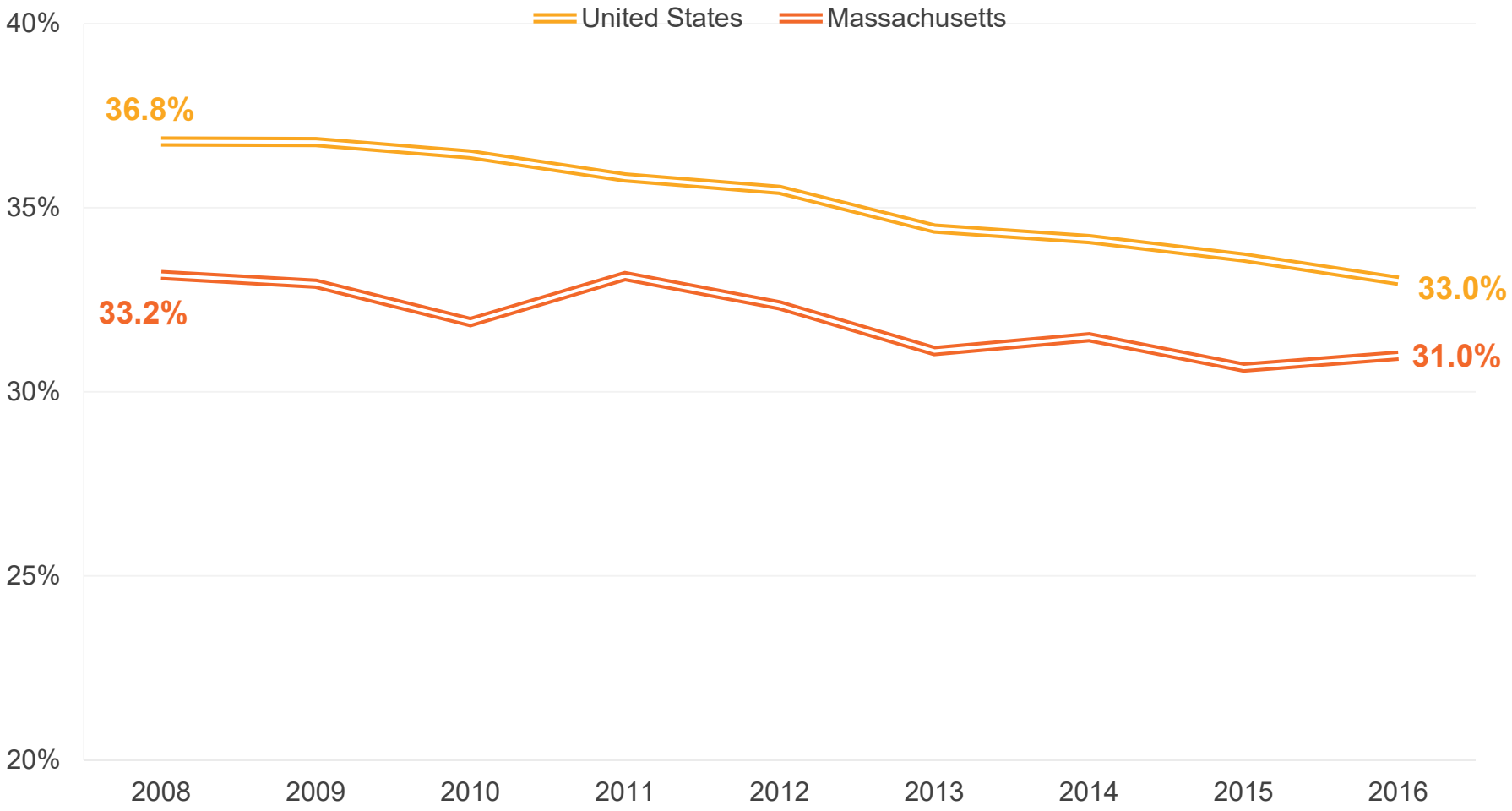
More Procedures in Outpatient Settings (HOPDs, ASCs)

- Consistent with growth in outpatient spending

Sources: Altman et al. A review of clinical Practice guidelines for Reflux Disease The Laryngoscope (2019); Amin et al. Association of same day discharge after elective Percutaneous Coronary Intervention in the United States with Costs and Outcomes JAMA Cardiology (2018); Kellokumpu, Ilmo et al. "Quality of life following laparoscopic Nissen fundoplication: assessing short-term and long-term outcomes." World journal of gastroenterology (2013); Livingston et al. Epidemiological Similarities Between Appendicitis and Diverticulitis Suggesting a Common Underlying Pathogenesis The Archives of Surgery (2011); Salminen et al. Antiobiotic Therapy vs Appendectomy for Treatment of Uncomplicated Acute Appendicitis JAMA (2015)

Fewer surgeries are taking place in inpatient settings.

Share of surgeries taking place in inpatient settings, United States and MA, 2008 - 2016



Notes: All figures reflect rounding.
Sources: American Hospital Association (AHA) TrendWatch and Annual Survey data, 2008 -2016

Case Study Examples of Declining Inpatient Care Categories

Inpatient discharges by CCS category for case study procedures, FY 2014 – FY 2018

Description	2014	2018	Difference	% Change
Hysterectomy, abdominal and vaginal	1,998	1,035	**963**	**-48.2%**
Appendectomy	1,579	1,094	**485**	**-30.7%**
Other hernia repair	782	391	**391**	**-50.0%**
Other vascular catheterization, not heart	2,134	1,795	**339**	**-15.9%**
Cholecystectomy and common duct exploration	1,868	1,539	**329**	**-17.6%**
Thyroidectomy, partial or complete	500	171	**329**	**-65.8%**
Spinal fusion	2,946	2,628	**318**	**-10.8%**
Percutaneous transluminal coronary angioplasty	2,200	1,926	**274**	**-12.5%**
Mastectomy	637	506	**131**	**-20.6%**
Diagnostic cardiac catheterization, coronary arteriography	1,740	1,658	**82**	**-4.7%**
Inguinal and femoral hernia repair	109	93	**16**	**-14.7%**

HPC

Notes: All figures reflect rounding.
Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2013 – FY2018

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HPC

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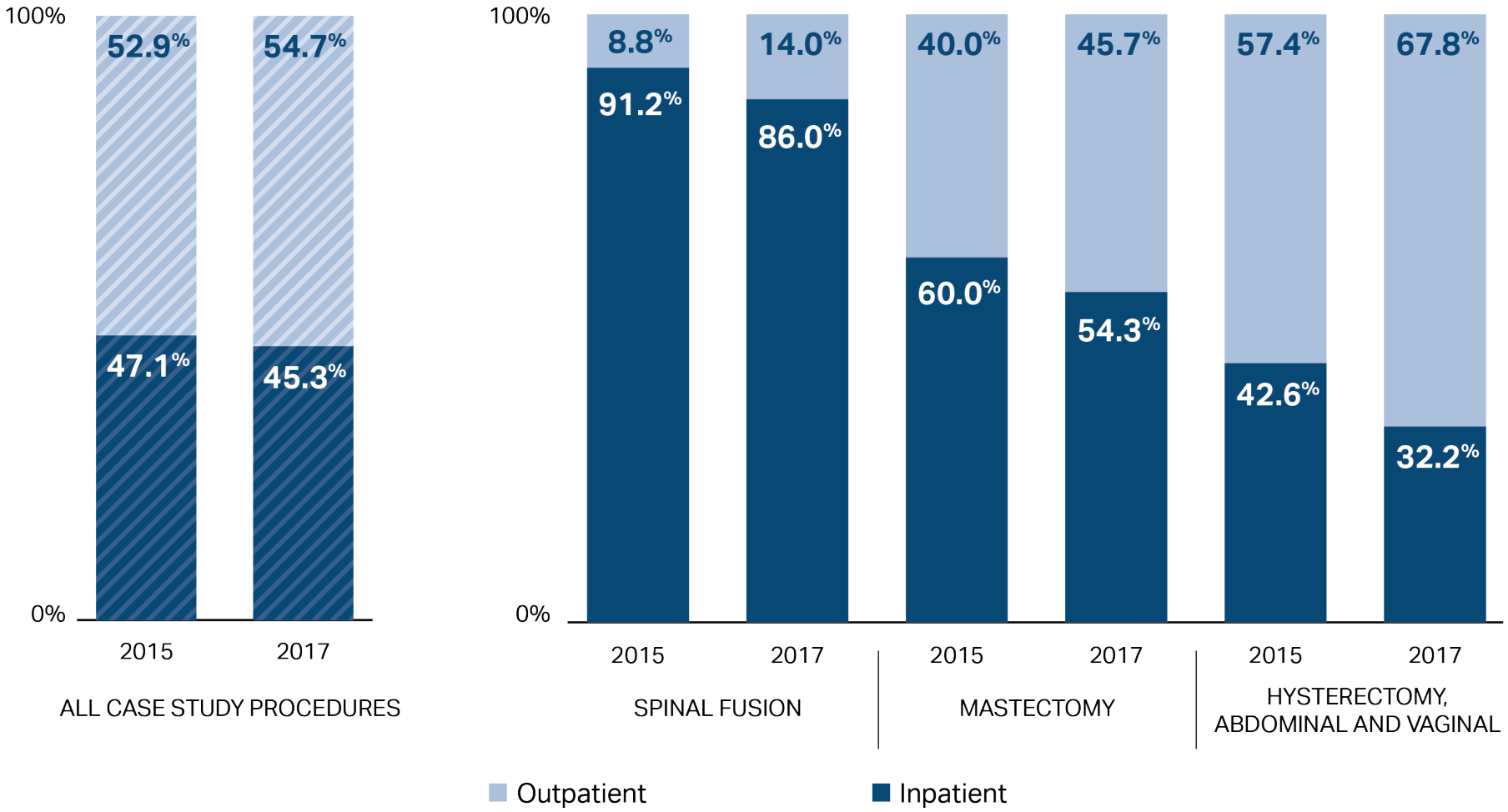
Sources: HPC analysis of Center for Health Information and Analysis HIDD, FY2013 – FY2018

A comparison of inpatient and outpatient volume confirms a shift to outpatient settings between 2015 and 2017.

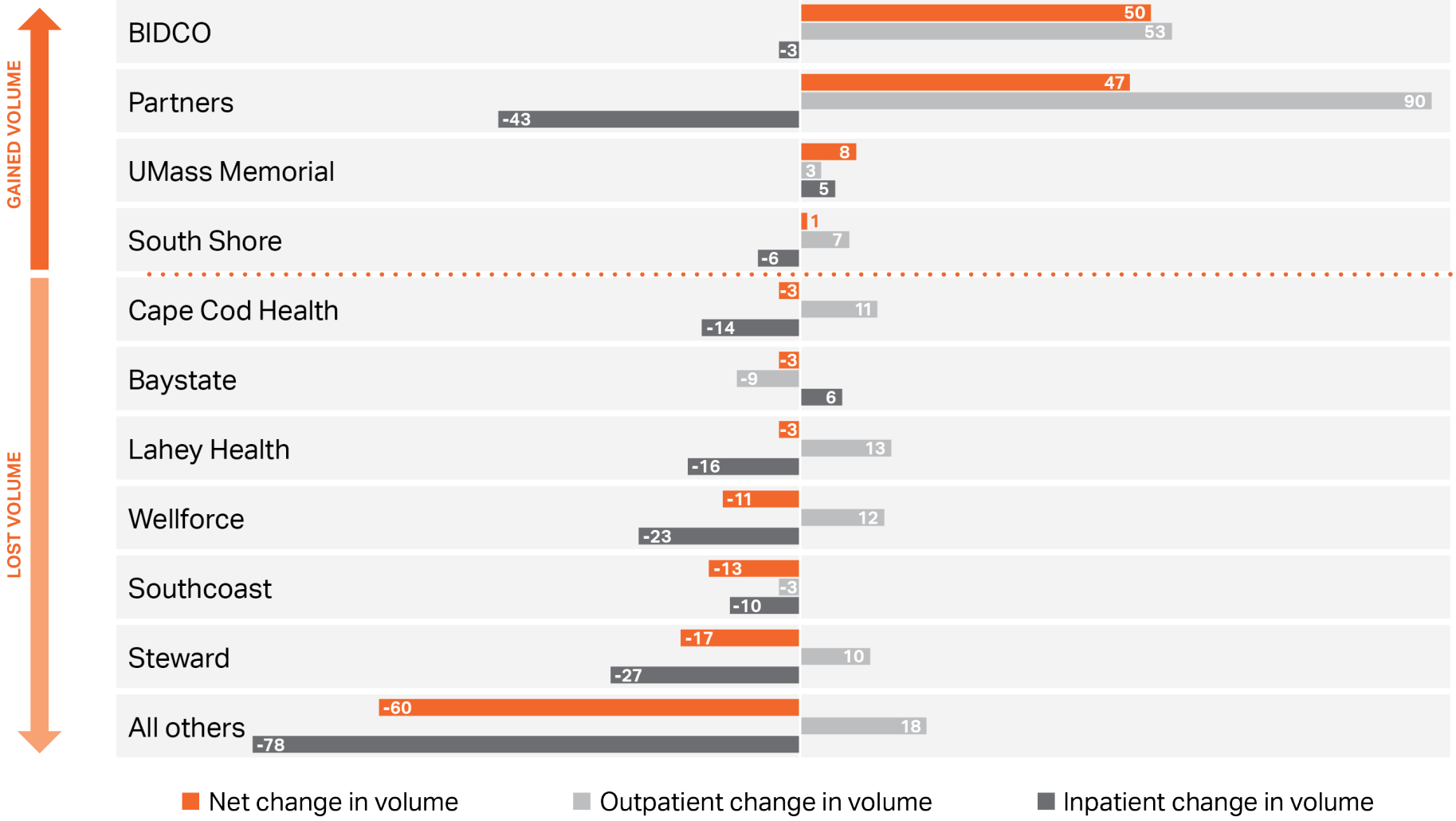
Percent of surgeries taking place in inpatient and outpatient settings for select case studies, 2015 – 2017



Notes: Case study procedures identified by CCS categories and combined into encounters (same patient, same procedure, same day). This analysis may not reflect the true reason for the inpatient stay (e.g., hysterectomy immediately after delivery). All figures reflect rounding.

Sources: HPC analysis of Center for Health Information and Analysis APCD 7.0, 2015 – 2017

As hysterectomy shifts from inpatient to outpatient, some systems gain volume at the expense of other systems.



Notes: Hysterectomies for this sub-analysis were identified using APR-DRGs 740-743 to exclude hysterectomies related to maternity & certain cancers (eg, ovarian) as these are not likely to be able to take place in an outpatient setting. All underlying counts (inpatient hysterectomy, outpatient hysterectomy) were >10 for each system included on this slide – the numbers presented are volume differences between 2015 and 2017 of data.

Sources: HPC analysis of Center for Health Information and Analysis APCD 7.0, 2015 – 2017

MASSACHUSETTS
HEALTH POLICY COMMISSION

AGENDA

- Call to Order
- Approval of Minutes from September 11, 2019 Meeting (**VOTE**)
- Executive Session: Performance Improvement Plan Discussion (**VOTE**)
- Market Oversight and Transparency
- **Care Delivery Transformation**
  - CHART Investment Program: Evaluation Results
- Schedule of Next Meeting (**Monday, December 16, 2019**)

MASSACHUSETTS
HEALTH POLICY COMMISSION

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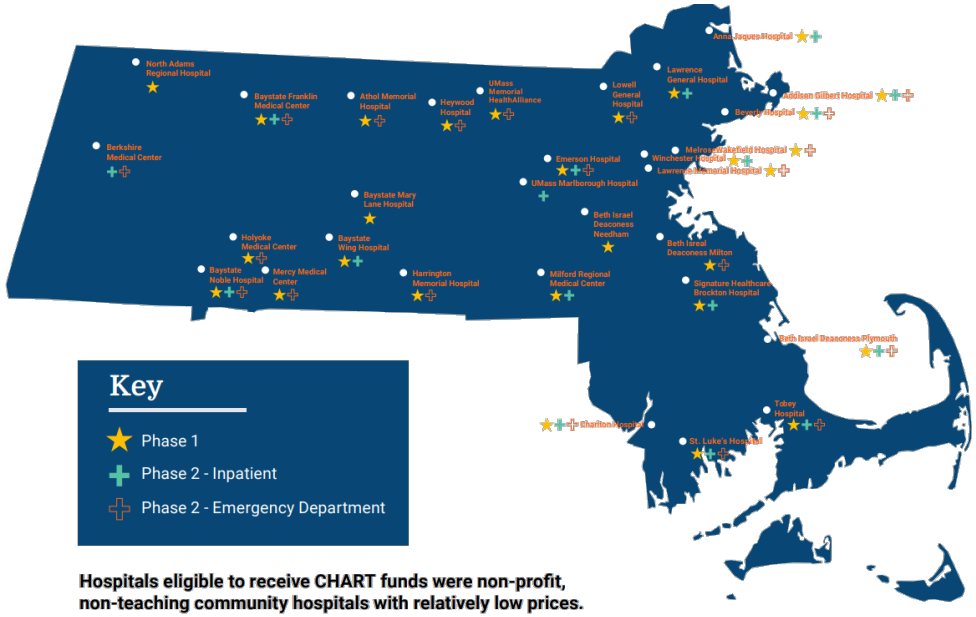
CHART Phase 2 Overview and Primary Goals



Hospitals eligible to receive CHART funds were non-profit, non-teaching community hospitals with relatively low prices.

2 YEARS*
$60 MILLION
27 HOSPITALS

GOAL 1:
Deliver Integrated Care Across Medical, Behavioral Health, and Social Needs

GOAL 2:
Shift Care From the Hospital to the Community

GOAL 3:
Use Data and Analytics to Better Serve Patients

GOAL 4:
Prepare to Succeed in Value-Based Care Models

*CHART Phase 2 programs launched on a rolling basis beginning September 2015 and were implemented over the period of 24 months, with the final Period of Performance ending January 31, 2018.

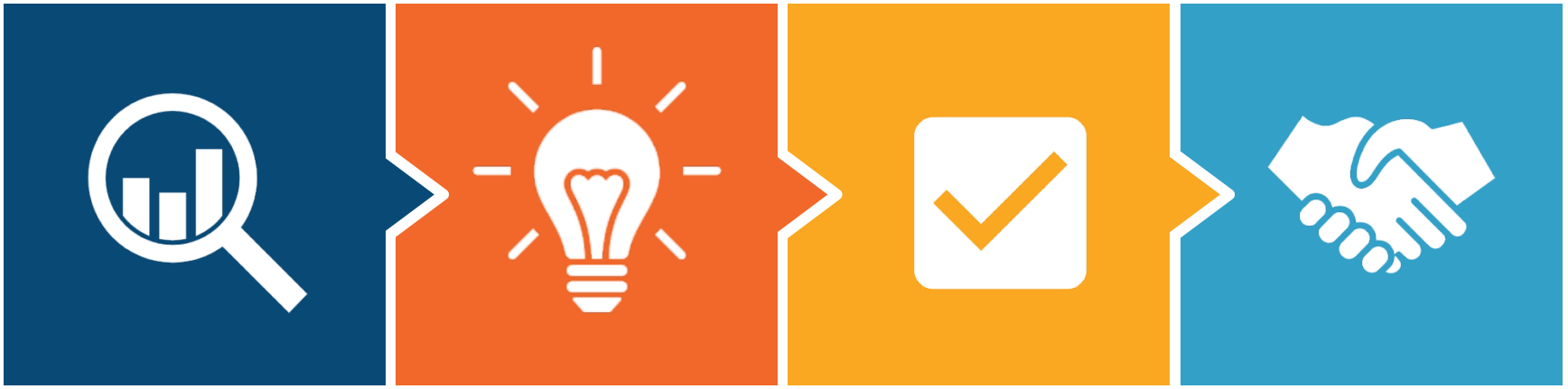
CHART Phase 2 Evaluation Framework

- The HPC utilized a **mixed methods evaluation approach** to understand how CHART Phase 2 was implemented, the impact on the program goals, and whether there were lasting implications beyond the investment period.

- The HPC drew on hospital reported data and contracted with the Boston University School of Public Health (BUSPH) to conduct **interviews with CHART patients and staff, hospital-wide surveys, and an analysis of CHIA inpatient and ED discharge data**.

Framework adapted from Berry SH, Concannon TW, Gonzalez Morganti K, et al. CMS innovation center health care innovation awards: Evaluation plan. RAND Corporation, 2013.

CHART Phase 2: Implementation Planning Period



Baseline Data

Hospitals performed local data analysis to identify target populations and utilization reduction targets.

Intervention Development

Hospitals developed care models, identified local partners and enabling technology needs, defined measures, and created budgets.

Finalize Plan

Hospitals finalized their care models, developed MOUs with local partners, and enumerated deliverables.

HPC Approval and Contracting

Hospitals and the HPC coordinated to finalize contracting.

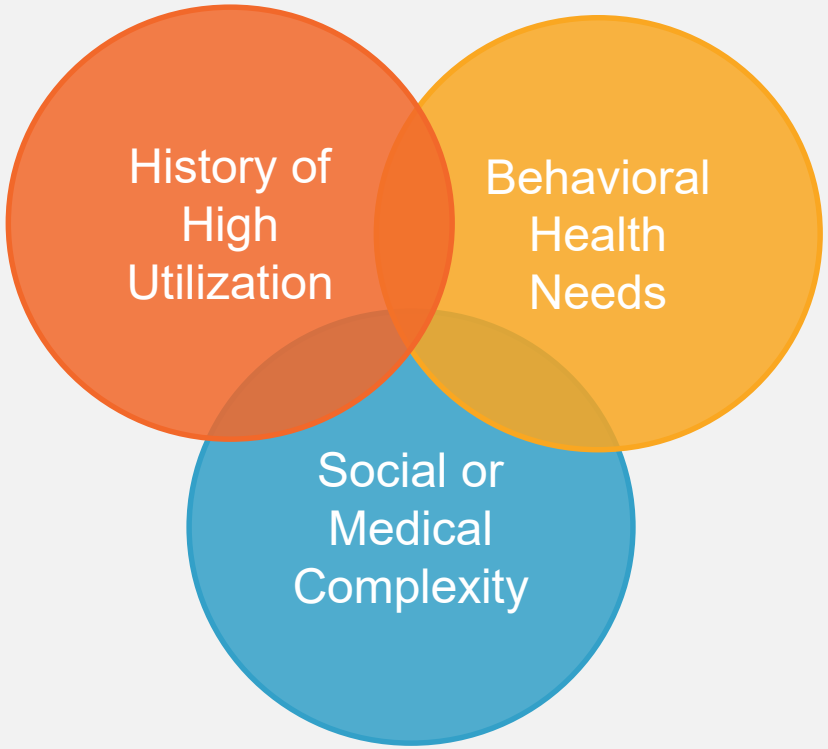
HPC

CHART Phase 2: Implementation Planning Period

Baseline Data

Hospitals performed local data analysis to identify target populations and utilization reduction targets.

Selection of Target Population



- Most hospitals defined their target population based on a **history of high utilization or behavioral health diagnosis**.
- Many hospitals also included **social complexity or medical complexity** as eligibility criteria.

CHART Phase 2: Implementation Planning Period

Baseline Data

Hospitals performed local data analysis to identify target populations and utilization reduction targets.

Setting Utilization Reduction Targets

Reducing readmissions

- Reduce inpatient readmissions
- Reduce returns to inpatient and observation status

Reducing ED utilization

- Reduce ED visits
- Reduce ED boarding time

- Hospitals selected primary aims in two focus areas, **inpatient readmissions or ED revisits**.
- In the absence of established benchmarks, hospitals were encouraged to **set aggressive targets to catalyze their focus** on reducing unnecessary utilization.

HPC

CHART Phase 2: Implementation Planning Period

Baseline Data

Hospitals performed local data analysis to identify target populations and utilization reduction targets.

Intervention Development

Hospitals developed care models, identified local partners and enabling technology needs, defined measures, and created budgets.

Development of Care Model

HPC

CHART Phase 2: Implementation Planning Period

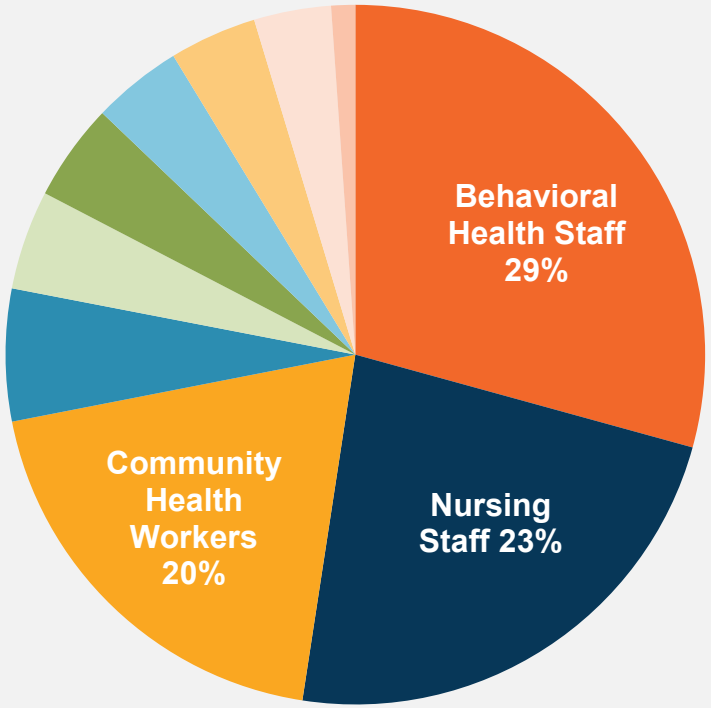
Baseline Data

Hospitals performed local data analysis to identify target populations and utilization reduction targets.

Intervention Development

Hospitals developed care models, identified local partners and enabling technology needs, defined measures, and created budgets.

Development of Staffing Model



- Hospitals designed staffing models with multidisciplinary teams that included clinical and nonclinical staff.

HPC

CHART Phase 2: Implementation Planning Period

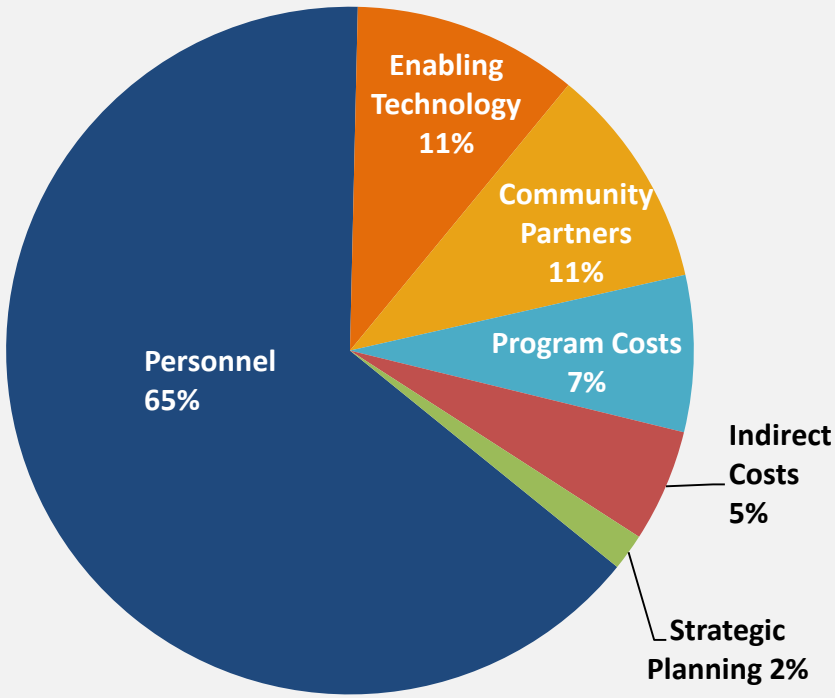
Baseline Data

Hospitals performed local data analysis to identify target populations and utilization reduction targets.

Intervention Development

Hospitals developed care models, identified local partners and enabling technology needs, defined measures, and created budgets.

Development of Program Budget



- Almost 2/3 of the CHART Phase 2 budget was allocated for personnel.
- Over half of Community Partnership funding was allocated to behavioral health services.

CHART Phase 2: Evaluating Impact

Goals of CHART Phase 2

GOAL 1:
Deliver Integrated Care Across Medical, Behavioral Health, and Social Needs

GOAL 2:
Shift Care From the Hospital to the Community

GOAL 3:
Use Data and Analytics to Better Serve Patients

GOAL 4:
Prepare to Succeed in Value-Based Care Models

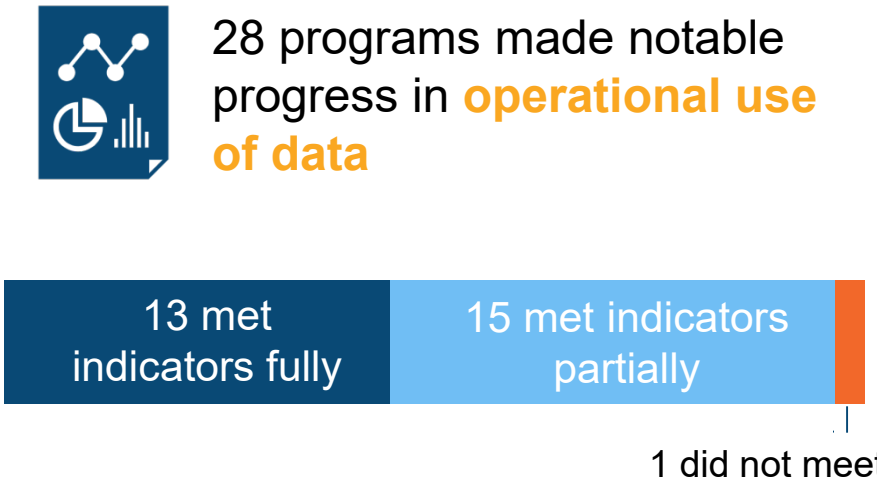
Measured by Impact Domains:

- Operational use of data
- Provision of integrated whole-person care
- Partnerships
- Acute care utilization
- Patient experience
- Sustainable organizational change

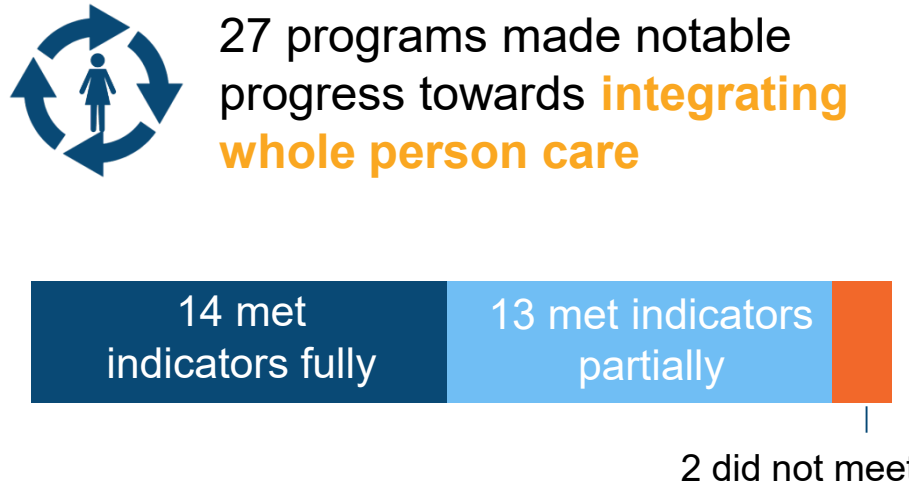
HPC

CHART Phase 2: Assessing Hospital Transformation

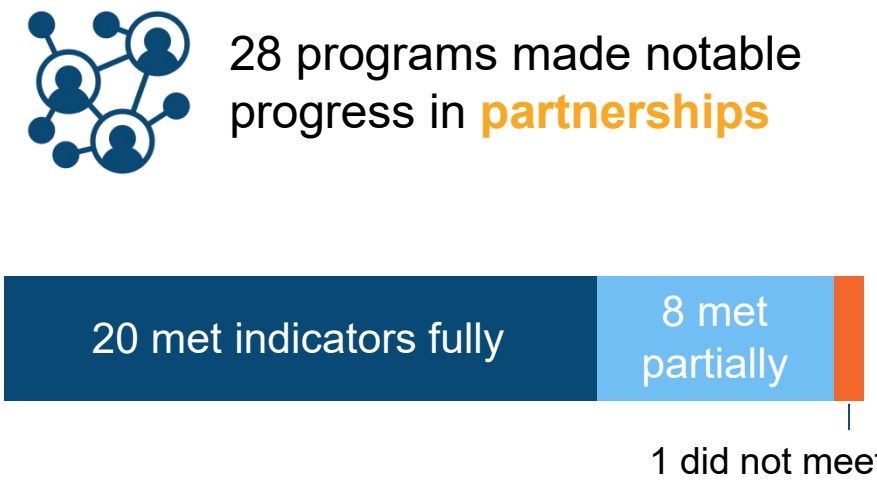
28 programs made notable progress in **operational use of data**



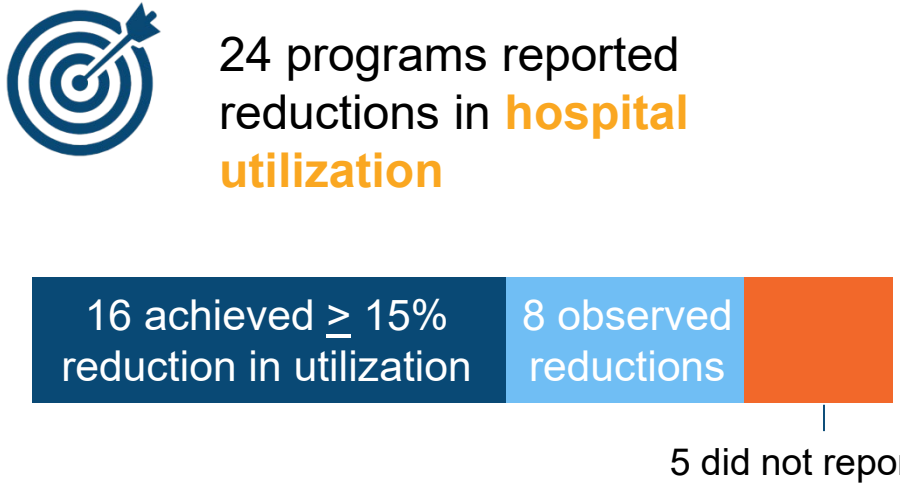
27 programs made notable progress towards **integrating whole person care**



28 programs made notable progress in **partnerships**



24 programs reported reductions in **hospital utilization**



HPC

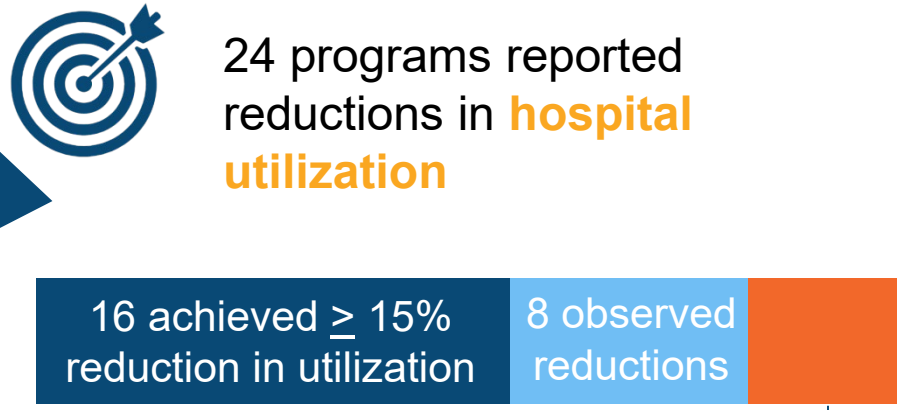
CHART Phase 2: Assessing Hospital Transformation

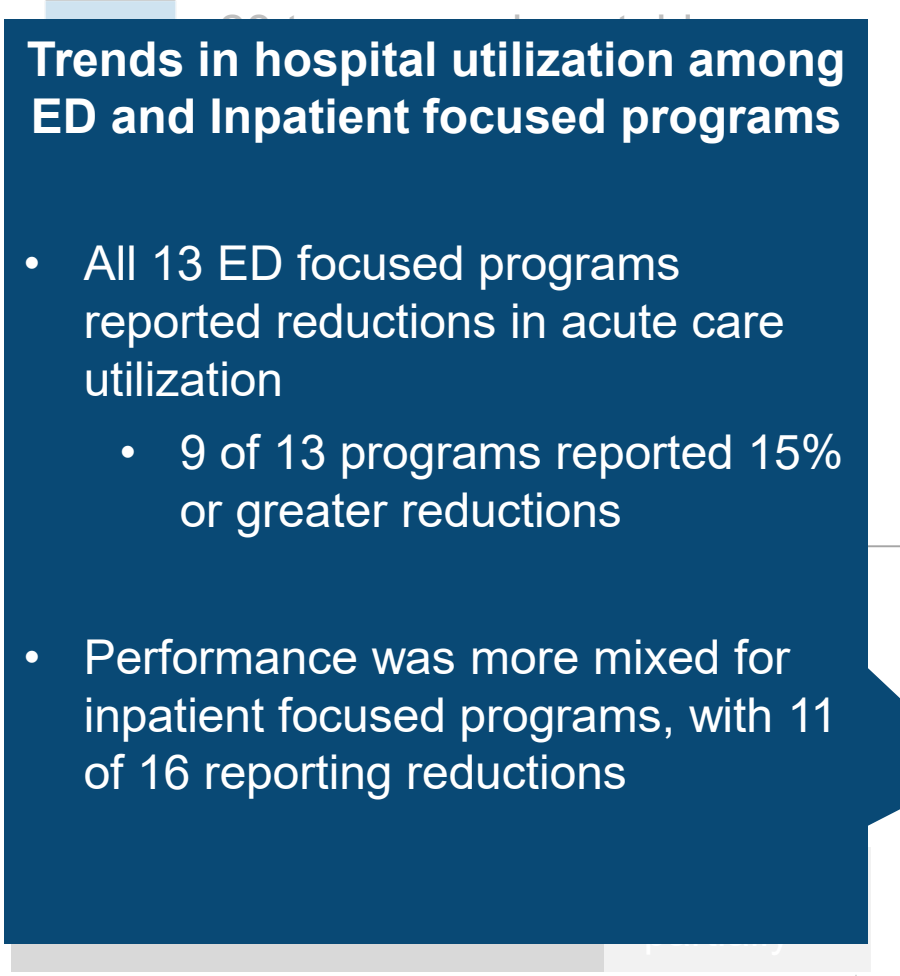
Trends in hospital utilization among ED and Inpatient focused programs

- All 13 ED focused programs reported reductions in acute care utilization
  - 9 of 13 programs reported 15% or greater reductions
- Performance was more mixed for inpatient focused programs, with 11 of 16 reporting reductions

27 programs made notable progress towards **integrating whole person care**

24 programs reported reductions in **hospital utilization**



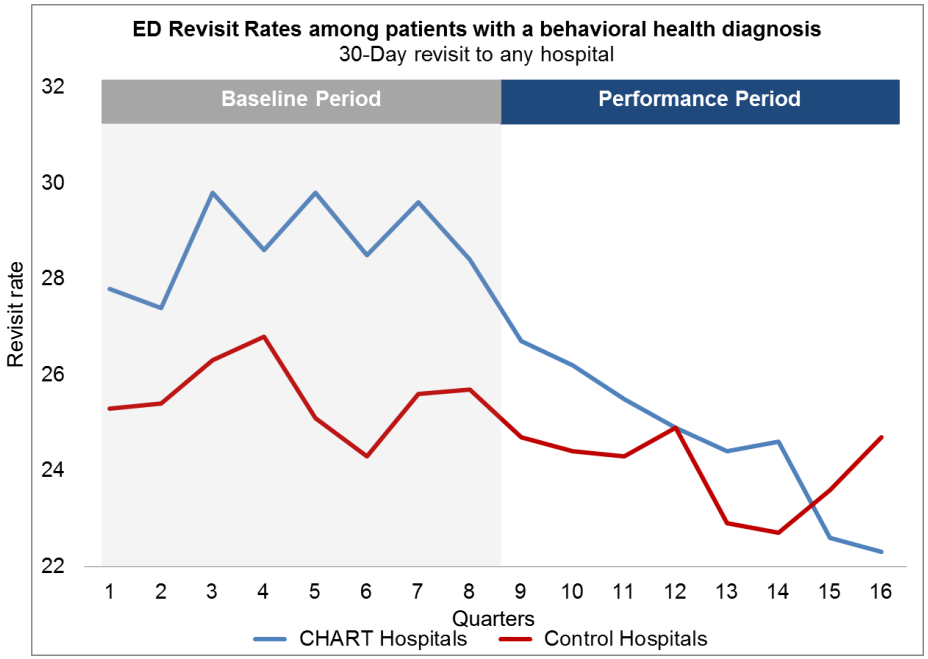


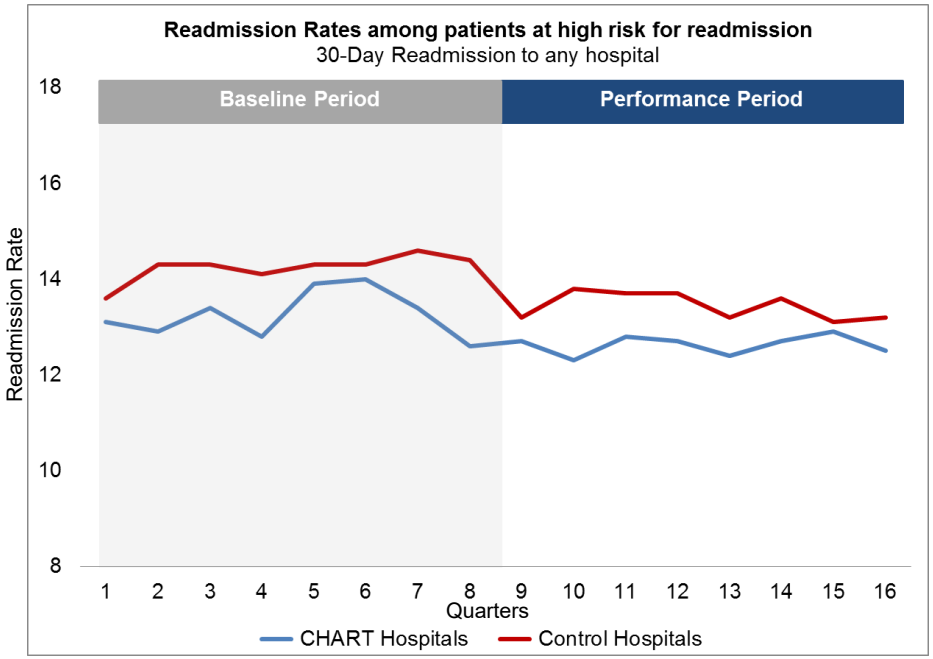
HPC

CHART Phase 2: Assessing Hospital Transformation

Discharge Data Affirmed Hospital-reported Reductions in ED Utilization

- Consistent with hospital reported data, analysis of CHIA discharge data showed that while ED revisit rates fell for eligible target population patients at CHART and control hospitals, the decrease was larger at CHART hospitals than control.
- Readmission patterns across the inpatient-focused CHART hospitals were similar to control hospitals among eligible patient populations.





HPC

Source: Boston University School of Public Health analysis of CHIA inpatient and ED discharge data from FY13-FY18.

CHART Phase 2: Assessing Patient Experience

Key themes from Boston University School of Public Health interviews with CHART patients:*

Complex patients' lives and experiences

- Stigma
- Multiple care providers not on the same page
- Confusion
- Gaps in care
- Disempowerment

What patients valued about CHART

- Individual attention
- Someone who cares and builds a relationship
- A person they can contact anytime, about anything

How CHART changed patients' interactions with the health care system

- Patients felt more confident, knowledgeable, and able to advocate for their own priorities
- Less reliant on the ED to access care
- Noticed communication and coordination among their multiple providers

"You have somebody on your side…they made themselves available.

"… They helped me find a primary care physician.

"…they pay more attention to what I'm saying. And they ask more questions to dig deeper.

"…due to the CHART program they kept me out of the hospital.

*To conduct the Patient Perspective Study (PPS), the BUSPH evaluation team interviewed 51 patients from 8 CHART hospitals.

CHART Phase 2: Assessing Sustainable Organizational Change

Organizational culture changes observed during CHART Phase 2

- Adopted a holistic approach to population health management
- Recognized the value of extending care beyond the hospital
- Embraced non-clinical staff as part of the care team
- Oriented towards data-driven decision making

Staff and leadership expressed support for the CHART model

"...that has been the most important contribution that the CHART grant has made for us; the **learning around how to manage a population** that has mental health issues, substance abuse issues, and how to intervene and **change their pattern of coming to the ED**... Other departments are beginning to learn about what we're doing, but it has been a **meaningful change in culture for us**..."

HPC

CHART Phase 2: Assessing Sustainable Organizational Change

23 programs were sustained in part or total

12 CHART programs were sustained	11 CHART programs were sustained in part	6 were not sustained

- Decisions were driven by organizational strategy and financial resources:
  - Alignment with ACO strategy
  - Alignment with Medicare Quality Metrics
  - Patient experience
- No hospitals attributed discontinuance to lack of effectiveness

*"[We] envisioned CHART as **a pilot to prepare for on-coming changes in payment models** that had already impacted Medicare and were becoming increasingly prevalent throughout the healthcare industry."*

*"[Patients are] receiving **higher quality of care than ever before** and also enjoying a significantly improved healthcare experience."*

HPC

CHART Phase 2: Reflecting on Transformation

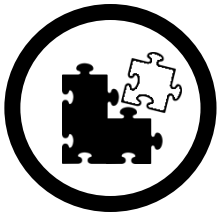
Traditional hospital care	vs.	Transformed care through CHART
Medical model of care		Integrated care across medical, social and behavioral needs
Focus on in-hospital care		Focus on care in the most appropriate community setting
Leadership focused on fee-for-service		Organization oriented toward value-based care
Limited use of information technology		Use of data and analytics to better serve patients

CHART Program Close-Out Outputs

CHART Impact Brief

The CHART Program Impact Brief provides an overview of the program, including:

- CHART Program goals
- Key data highlights
- Patient and provider stories
- Patient and provider quotes

Released August 2019

CHART Playbook

A practical guide that includes resources used by CHART awardees as well as key lessons, including:

- Patient identification
- Patient engagement
- Patient collaboration
- Team staffing and management
- Measurement

CHART Profiles

A compilation of CHART awardee profiles including information on:

- Funding
- Focus areas
- Target populations
- Care models
- Data highlights
- Transformation achievements
- Provider quotes
- Patient stories

CHART Evaluation

A comprehensive analysis of the CHART program, including:

- Design and implementation
- Impact on acute care utilization, operational use of data, provision of integrated whole-person care and development of community partnerships
- Patient perspective study
- Sustainable organizational change

HPC

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- Call to Order
- Approval of Minutes from September 11, 2019 Meeting (**VOTE**)
- Executive Session: Performance Improvement Plan Discussion (**VOTE**)
- Market Oversight and Transparency
- Care Delivery Transformation
- **Schedule of Next Meeting (Monday, December 16, 2019)**

2020 Public Meeting Calendar

Upcoming 2019 Meetings and Contact Information

Board Meetings

Monday, December 16

Public Hearings

Drug Pricing Review Regulation Hearing: Friday, December 13

EOHHS: 10 AM – 12 PM

HPC: 1 PM – 3 PM

Contact Us

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