

## MVC ED-Based Episodes Report

Dear hospital partner,

The Michigan Value Collaborative (MVC) is excited to share this refreshed hospital-level emergency department (ED)-based episodes report. The report provides data using MVCs ED-based episodes of care, which MVC developed in collaboration with the Michigan Emergency Department Improvement Collaborative (MEDIC) to provide insights on care received during and after ED visits for high-volume ED-relevant conditions. These episodes encompass a patient's care received from the start of their index ED visit through 30 days post-index event.

Each page of the report is dedicated to a specific condition with the same metrics throughout. These metrics include risk-adjusted, price-standardized 30-day total episode payments (overall and by same-day inpatient admission status), inpatient admission rates, and rates of post-ED utilization including payer-stratified outpatient services utilization rates. There is also a page dedicated to summarizing patient characteristics among episodes for each of the eight included ED-based conditions. For more detail on metric definitions or MVCs ED-based episode methodology, please refer to the supplemental fact sheet and metric interpretation guide at the end of this report.

### Report Details

- Patients Included
  - Adults aged 18 and older
  - 30-day ED-based episodes for Blue Care Network (BCN) HMO Commercial and Medicare Advantage (MA) claims, Blue Cross Blue Shield of Michigan (BCBSM) PPO Commercial and MA claims, and Michigan Medicaid claims with index ED visits between 07/01/2021-06/30/2023
  - 30-day ED-based episodes for Medicare Fee-for-Service (FFS) claims with index ED visits between 07/01/2021-11/30/2022
  - Patients who visited the ED with a primary diagnosis of abdominal pain, cellulitis, chest pain (nonspecific), congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), diabetes with long-term complications (including renal, eye, neurological, or circulatory), diabetes with short-term complications (including ketoacidosis, hyperosmolarity, or coma), or urinary tract infection (UTI)
  - Hospitals will only receive data on a specific condition if they had at least 20 episodes for that condition across all payers during the reporting period
- Comparison Groups
  - MVC All data reflect averages among all MVC general acute care hospitals with attributed patient episodes meeting the above criteria

If you have feedback, questions, or would like to see additional data for your hospital, please reach out to the MVC Coordinating Center at [Michigan-Value-Collaborative@med.umich.edu](mailto:Michigan-Value-Collaborative@med.umich.edu).

Thank you for your partnership,  
MVC Coordinating Center



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## MVC ED-Based Episodes Report Hospital A

### Patient Population Snapshot for ED-Based Episodes at Your Hospital

	Abdominal Pain	Cellulitis	Chest Pain	CHF	COPD	Diabetes Long-Term Complications	Diabetes Short-Term Complications	Urinary Tract Infection
Mean Age (years)	43.1	48.9	48.2	67.9	66.2	56.5	40.8	47.4
Percent Female	71.9%	55.1%	62.6%	54.9%	65.2%	45.3%	56.4%	80.6%
American Indian or Alaska Native	0.7%	0.8%	0.7%	0.6%	0.4%	0.5%	0.0%	1.0%
Asian or Pacific Islander	0.4%	0.2%	0.7%	0.2%	0.3%	0.0%	0.0%	0.6%
Black	56.3%	48.6%	59.6%	63.6%	50.5%	68.3%	71.8%	49.3%
Hispanic	2.2%	1.1%	1.6%	0.6%	0.3%	1.0%	0.5%	1.7%
White*	35.5%	44.9%	32.4%	31.8%	46.4%	26.0%	20.7%	43.8%
Percent of Patients Living in an "At-Risk" or "Distressed" Zip Code**	70.5%	68.7%	72.4%	77.8%	71.9%	75.7%	81.5%	70.1%
Most Frequent Comorbidities	Diabetes (18.1%), Psychological Disorders (15.1%), COPD (8.6%)	Diabetes (24.2%), Vascular Disease (13.6%), Psychological Disorders (13.1%)	Diabetes (21.3%), Psychological Disorders (13.6%), COPD (12.4%)	Diabetes (49.1%), COPD (44.2%), Vascular Disease (36.6%)	Diabetes (36.2%), CHF (33.9%), Vascular Disease (27.5%)	Vascular Disease (44.0%), CHF (33.3%), COPD (28.2%)	Psychological Disorders (14.5%), CHF (14.1%), COPD (10.1%)	Diabetes (18.5%), Psychological Disorders (13.8%), COPD (9.9%)
Utilization Rate of Observation Stay During Index Event***	4.2%	8.9%	15.6%	18.5%	17.5%	16.8%	15.9%	6.0%

\*Race denominator includes all patients and may not add up to 100% due to exclusion of other race categories

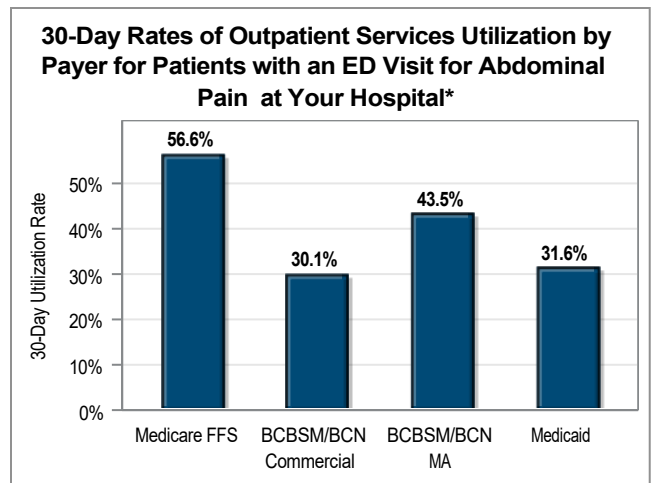
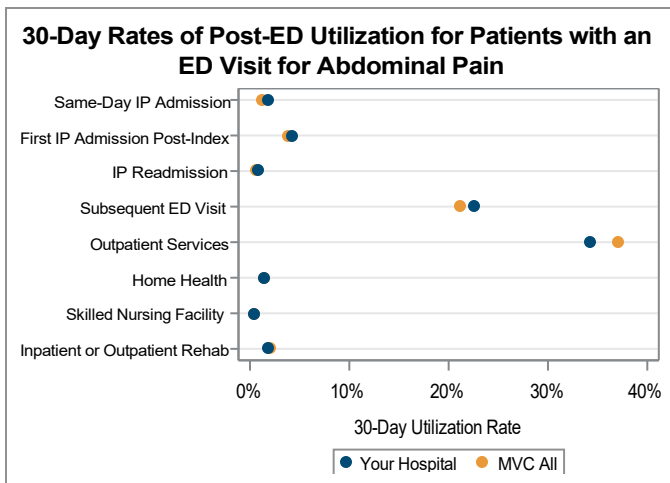
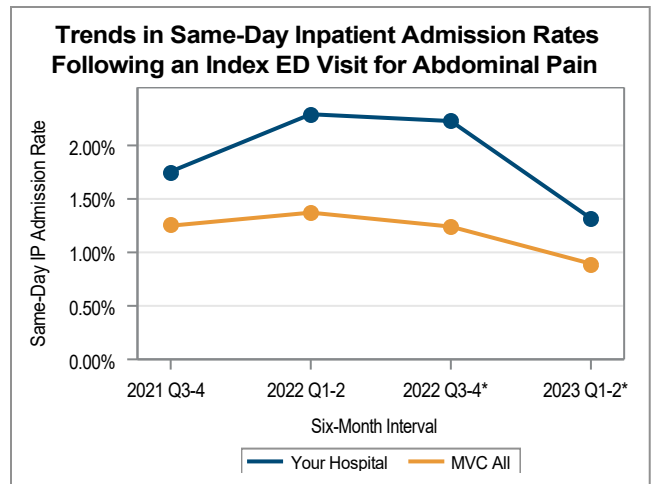
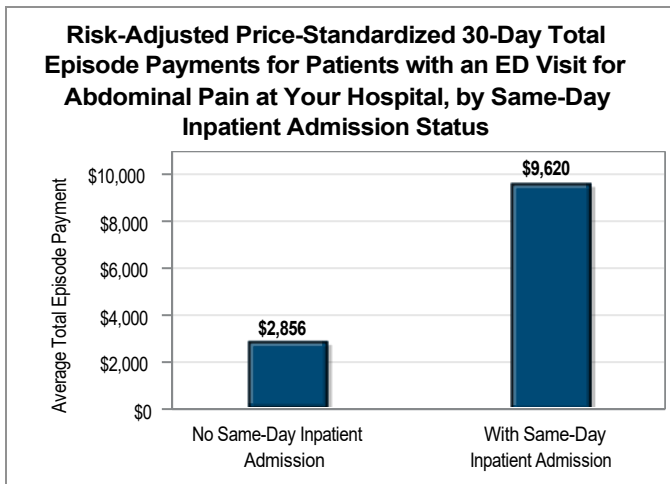
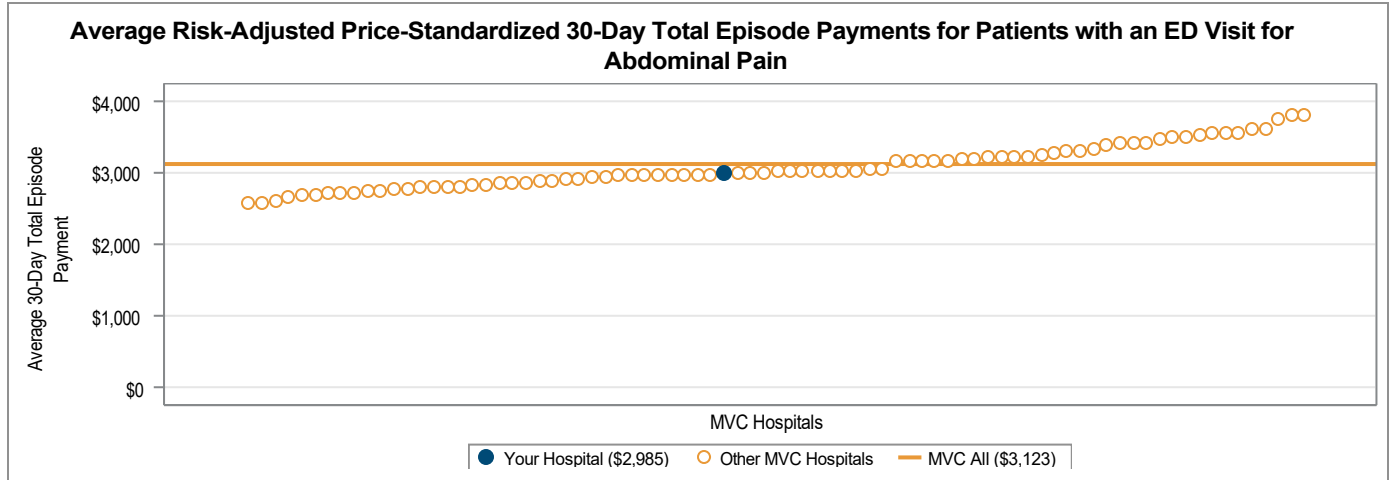
\*\*Patient zip codes categorized as prosperous, comfortable, mid-tier, at-risk, or distressed according to the Economic Innovation Group's Distressed Communities Index 2015-19, which incorporates economic indicators such as education, employment, and income.

\*\*\*Observation stays identified on facility claims by revenue code 0760 or 0762 or CPT code G0378 or G0379

Data source: MVC 30-day ED-based episodes with index events 07/01/2021 - 6/30/2023 (BCBSM PPO Commercial, BCN Commercial, BCBSM PPO MA, BCN MA, and Medicaid), 07/01/2021 - 11/30/2022 (Medicare FFS)

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## MVC ED-Based Episodes Report: Abdominal Pain Hospital A



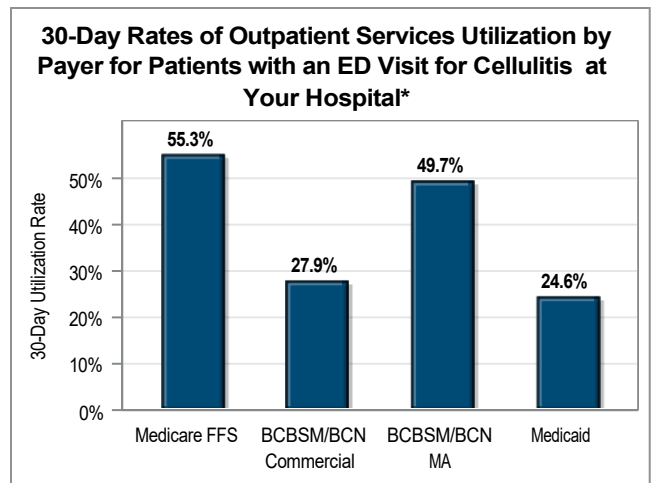
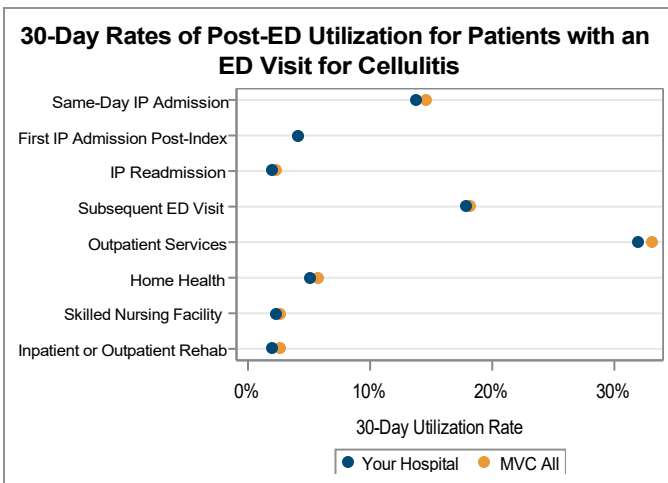
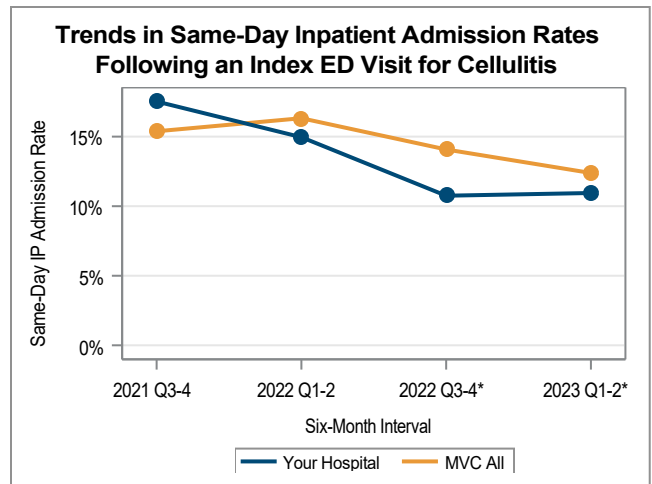
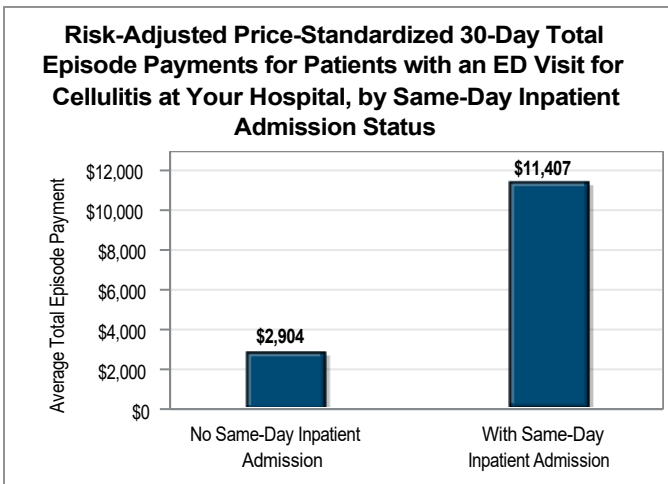
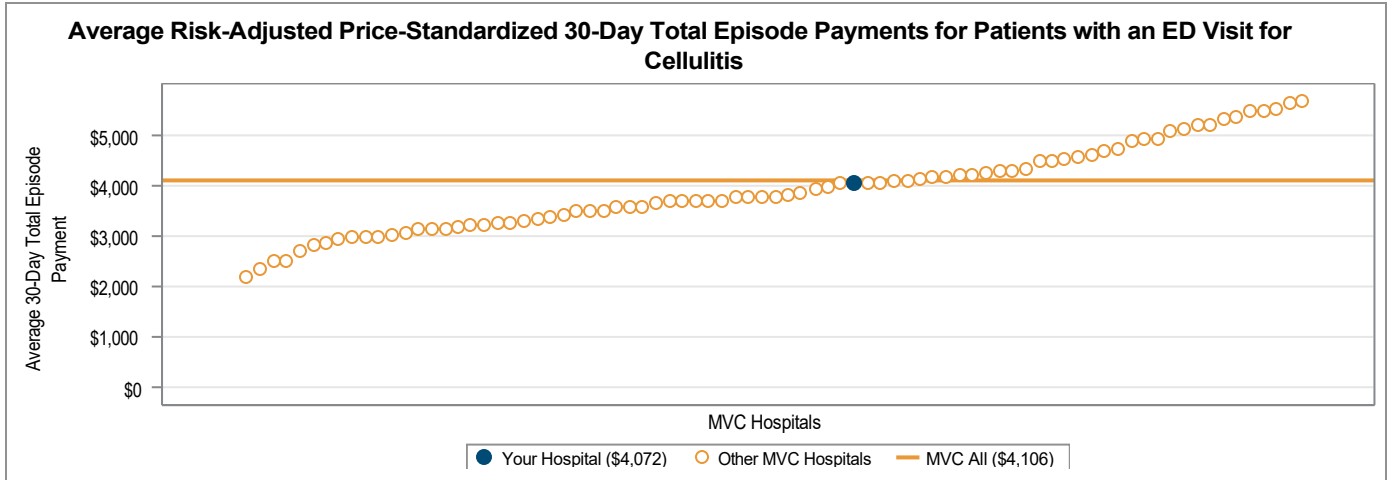
\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

\*\*The figure is presented only for conditions with more than two payer categories, each having at least 11 episodes

Data source: MVC 30-day ED-based episodes with index events 07/01/2021 - 6/30/2023 (BCBSM PPO Commercial, BCN Commercial, BCBSM PPO MA, BCN MA, and Medicaid), 07/01/2021 - 11/30/2022 (Medicare FFS)

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## MVC ED-Based Episodes Report: Cellulitis Hospital A



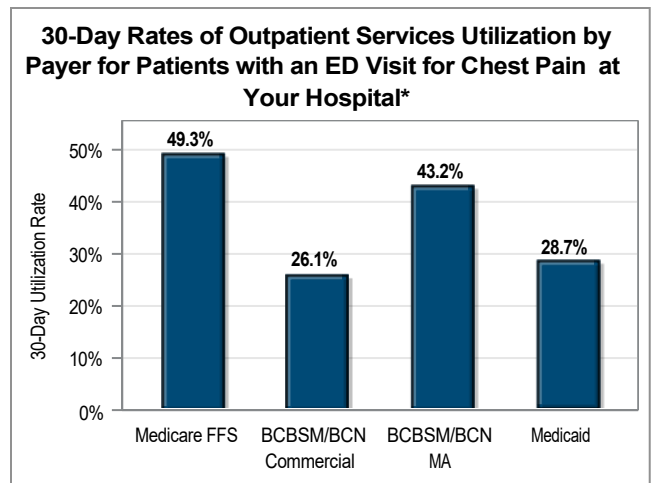
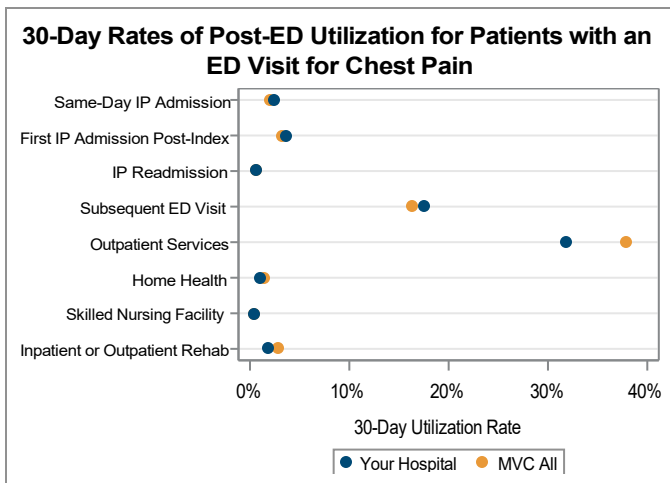
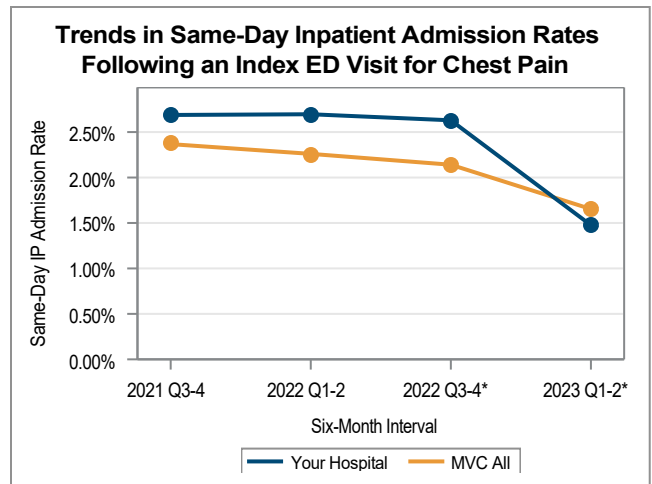
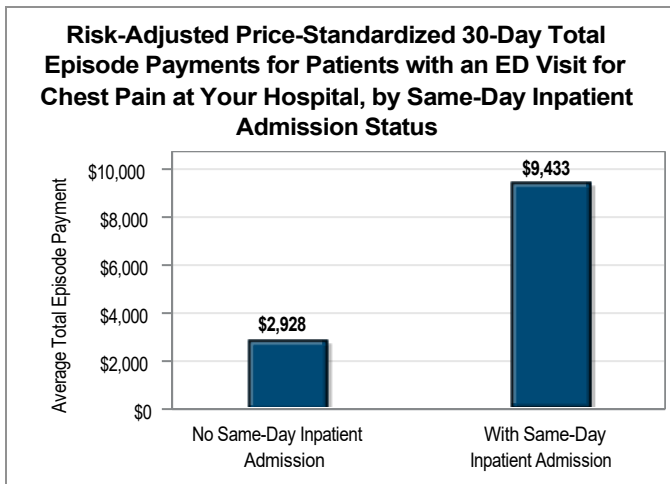
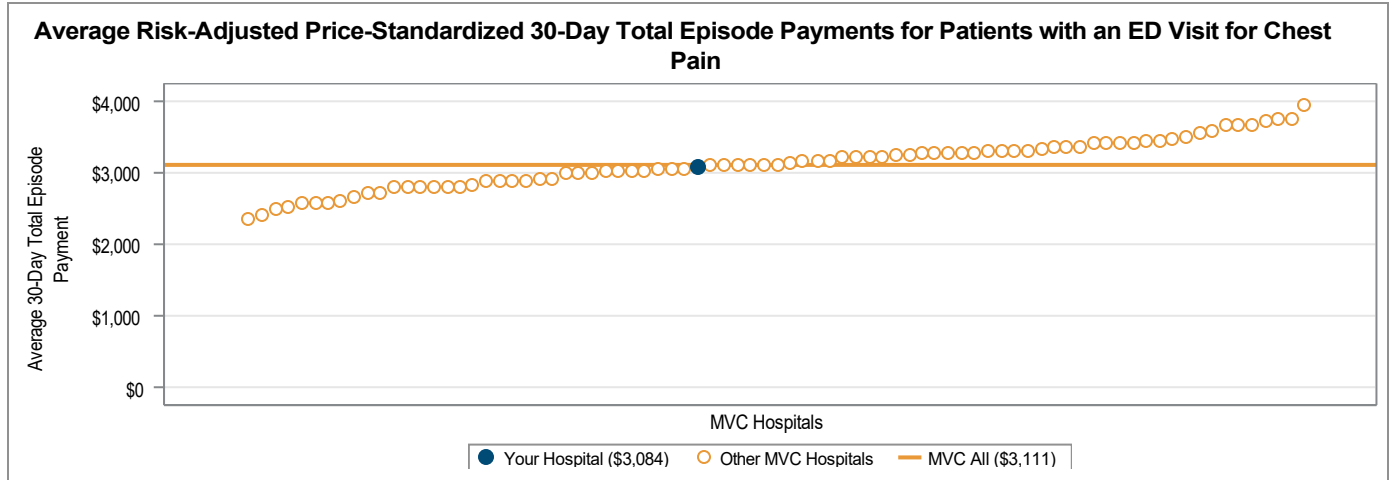
\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

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## MVC ED-Based Episodes Report: Chest Pain Hospital A



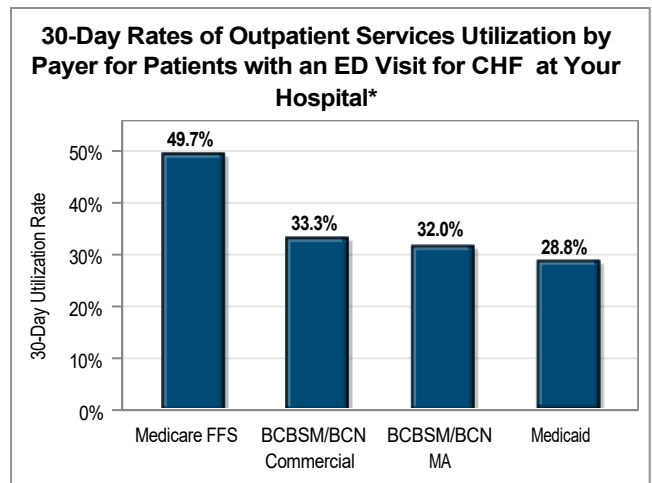
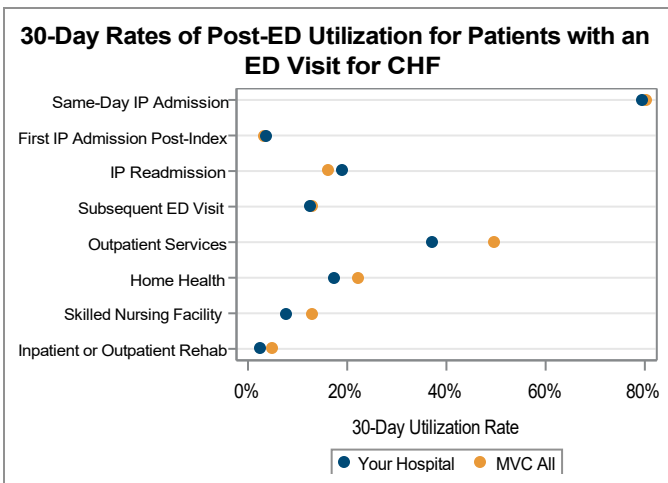
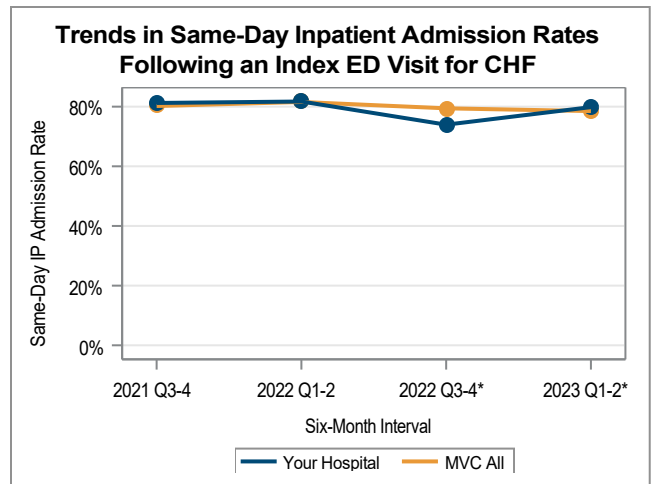
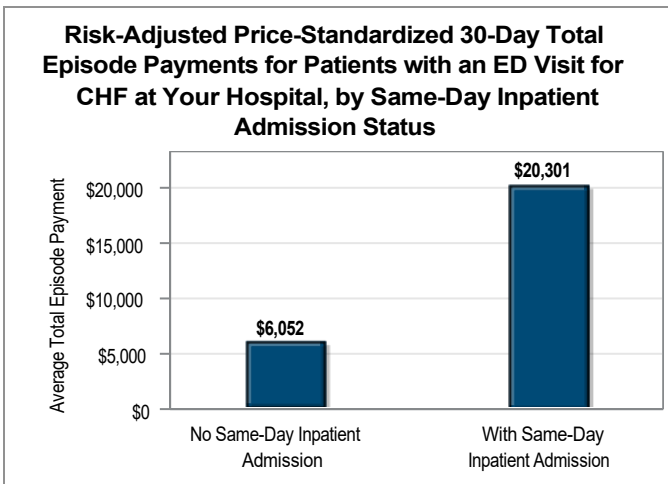
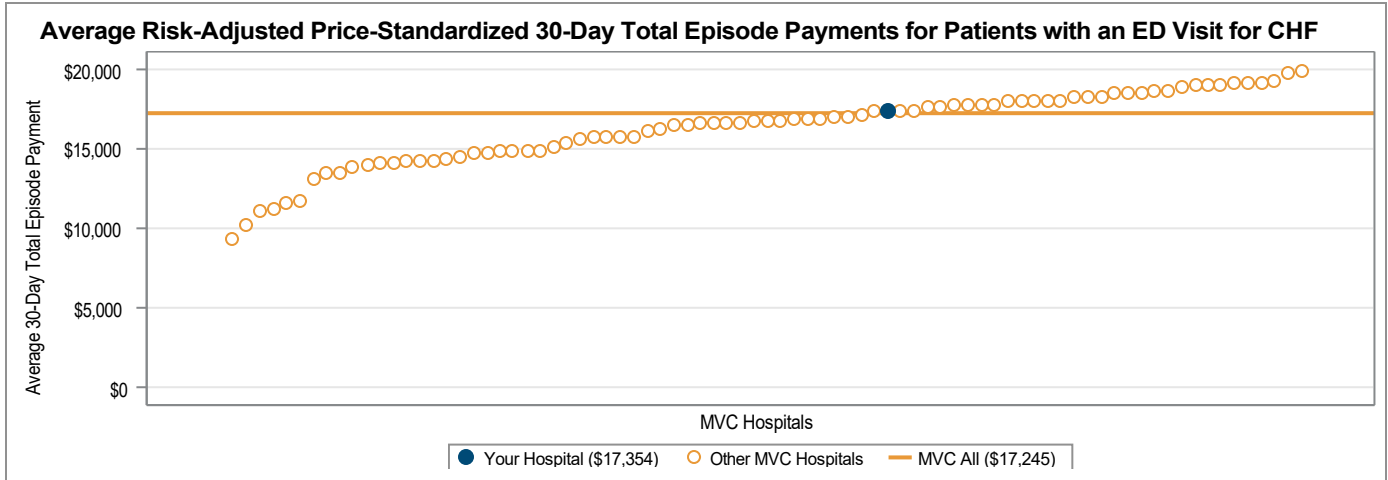
\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

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## MVC ED-Based Episodes Report: CHF Hospital A



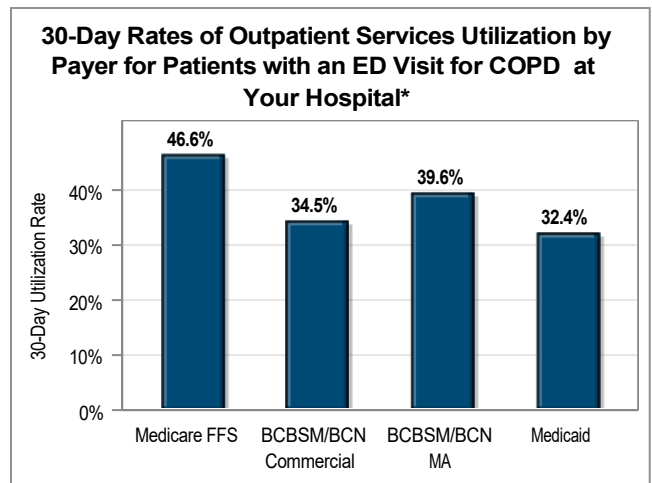
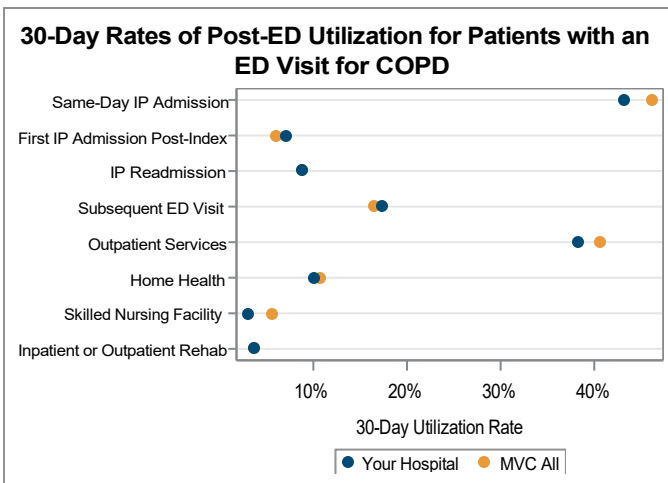
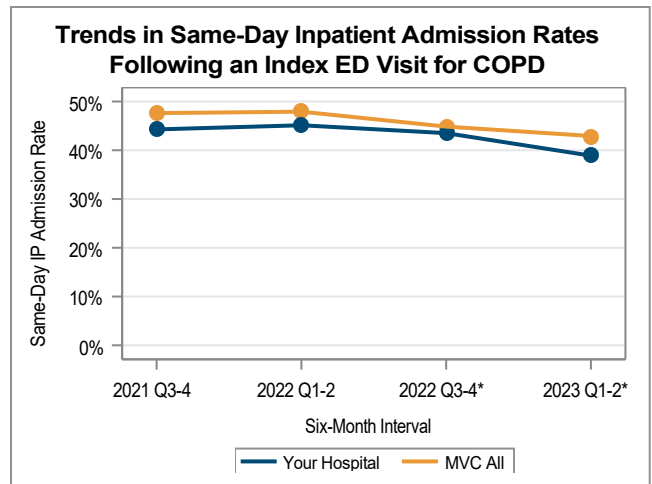
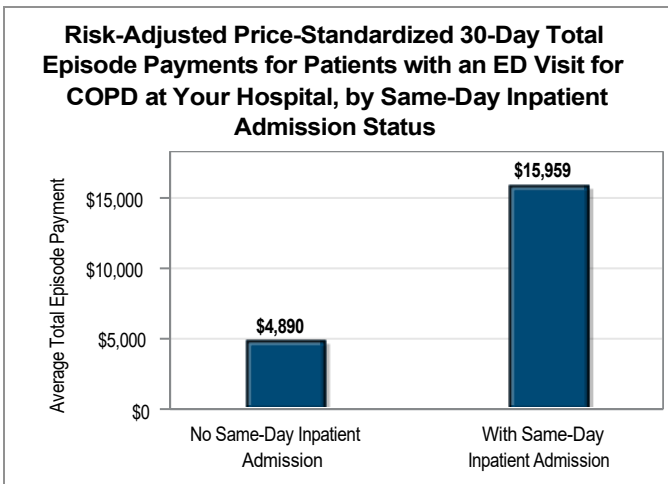
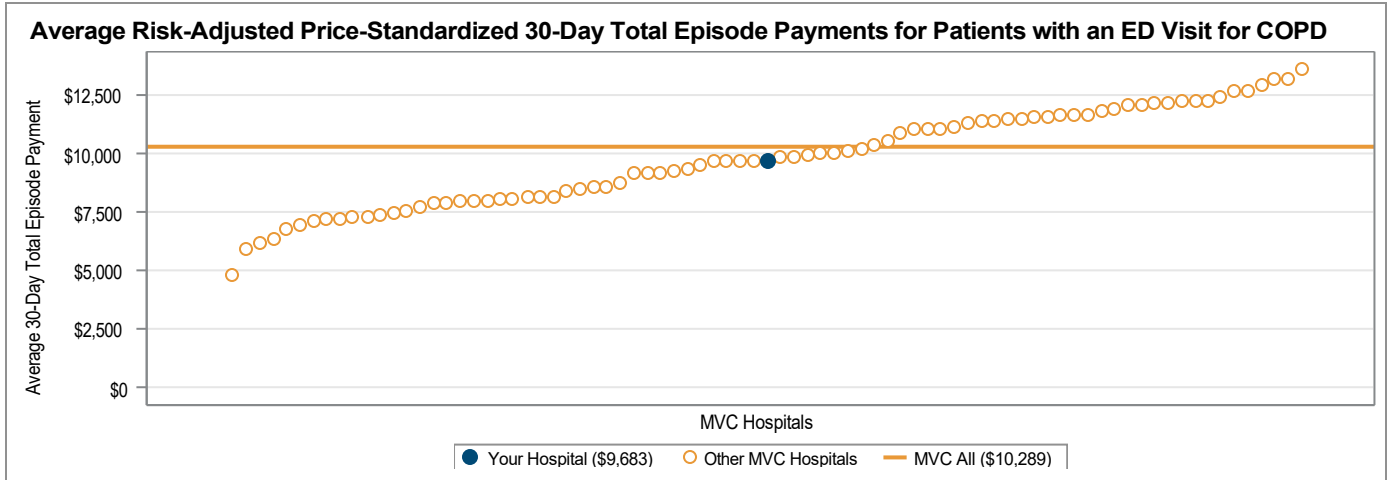
\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

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## MVC ED-Based Episodes Report: COPD Hospital A



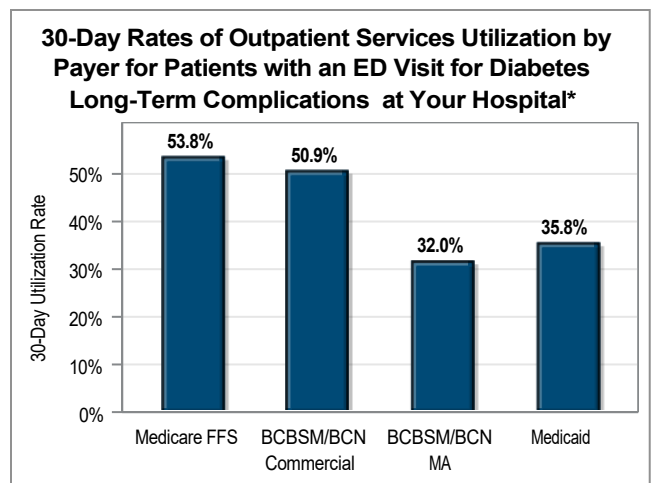
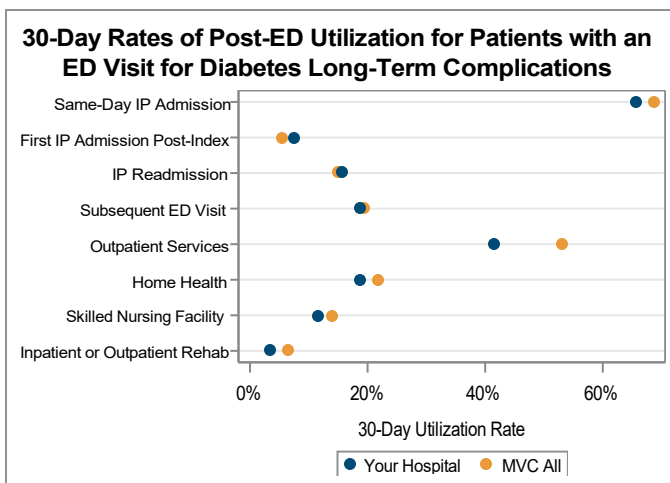
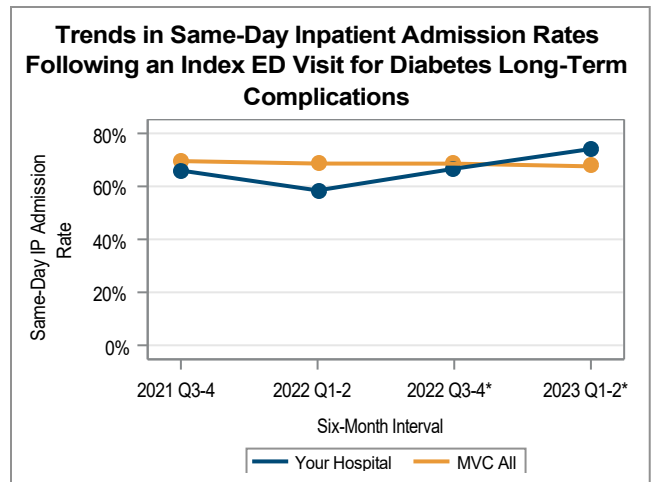
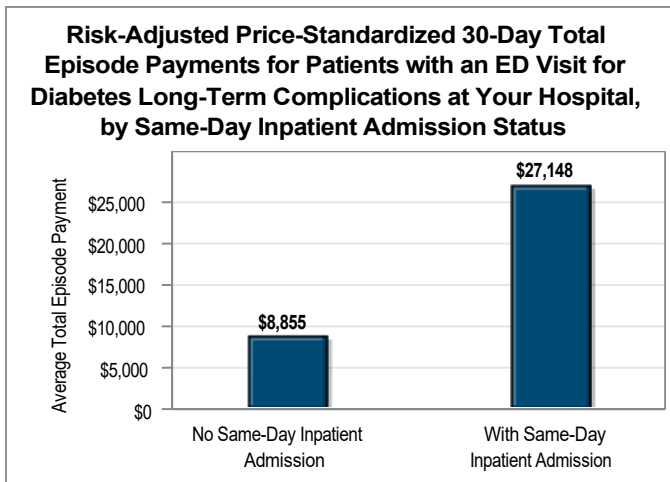
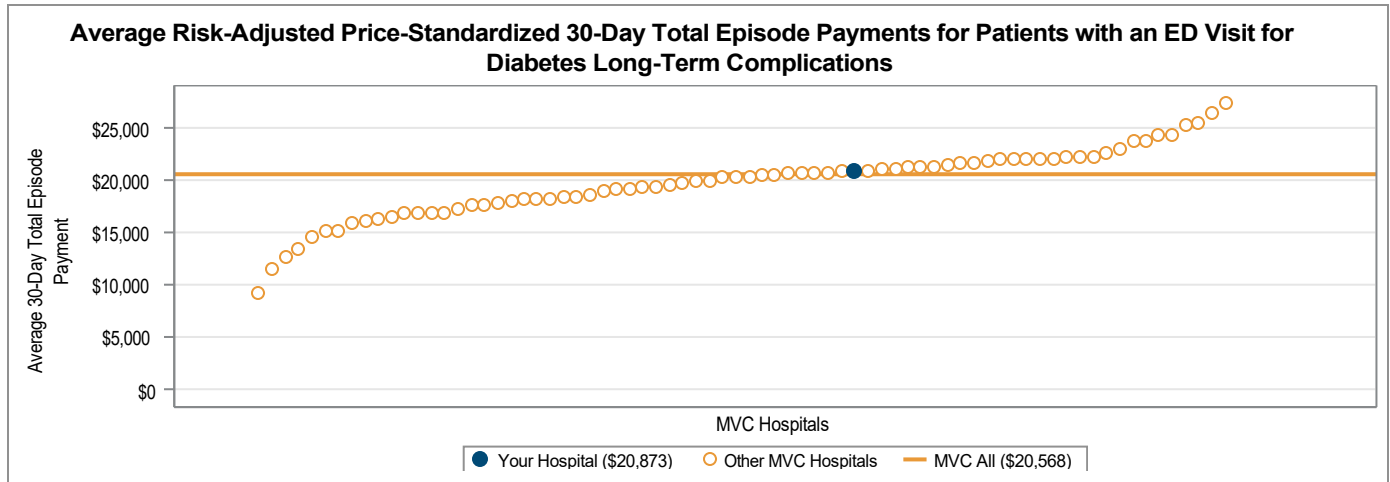
\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

\*\*The figure is presented only for conditions with more than two payer categories, each having at least 11 episodes

Data source: MVC 30-day ED-based episodes with index events 07/01/2021 - 6/30/2023 (BCBSM PPO Commercial, BCN Commercial, BCBSM PPO MA, BCN MA, and Medicaid), 07/01/2021 - 11/30/2022 (Medicare FFS)

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## MVC ED-Based Episodes Report: Diabetes Long-Term Complications Hospital A



\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

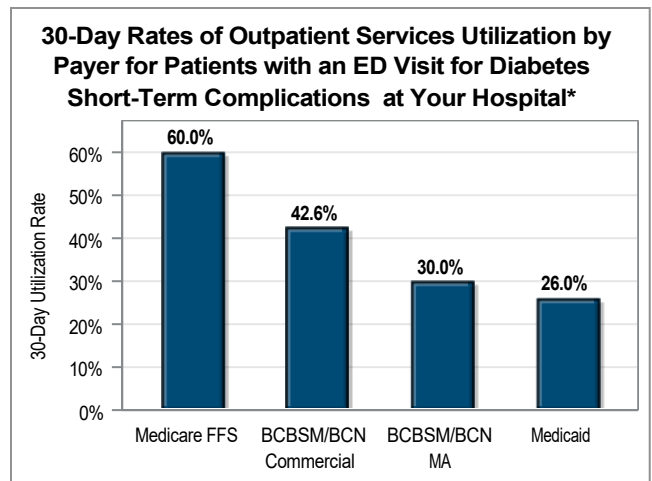
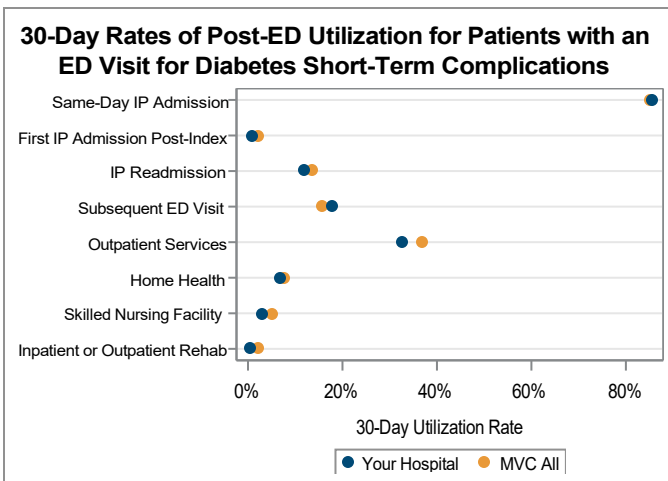
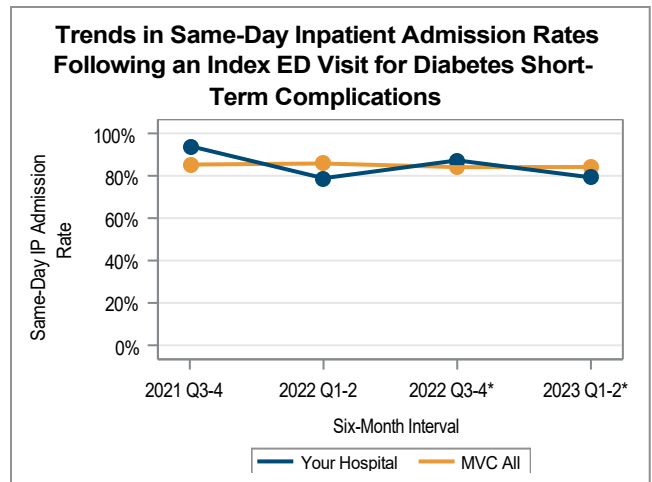
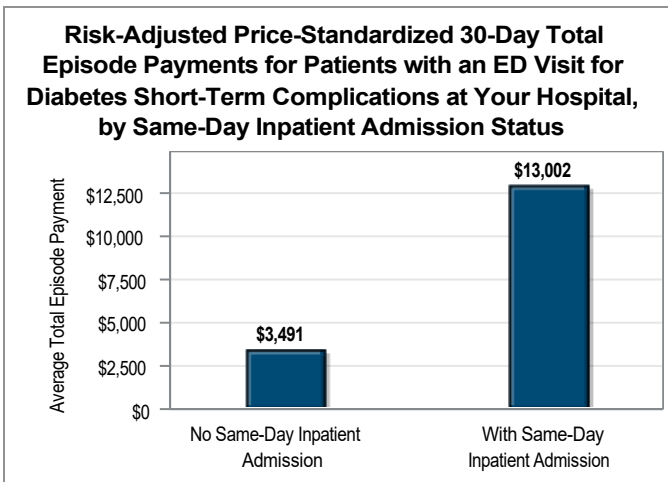
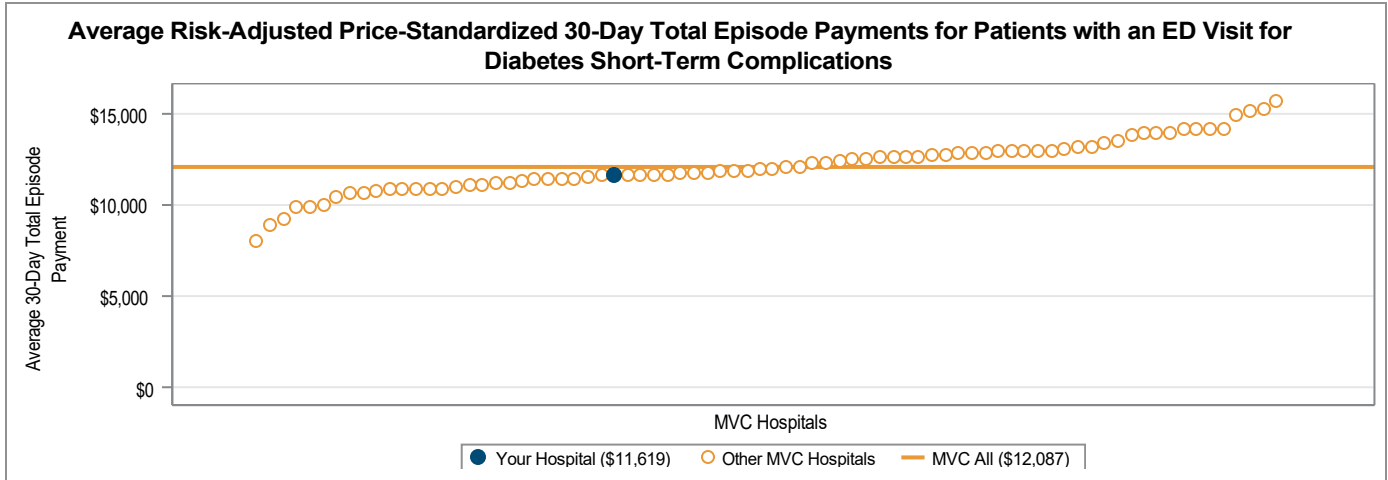
\*\*The figure is presented only for conditions with more than two payer categories, each having at least 11 episodes

Data source: MVC 30-day ED-based episodes with index events 07/01/2021 - 6/30/2023 (BCBSM PPO Commercial, BCN Commercial, BCBSM PPO MA, BCN MA, and Medicaid), 07/01/2021 - 11/30/2022 (Medicare FFS)

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## MVC ED-Based Episodes Report: Diabetes Short-Term Complications Hospital A



\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

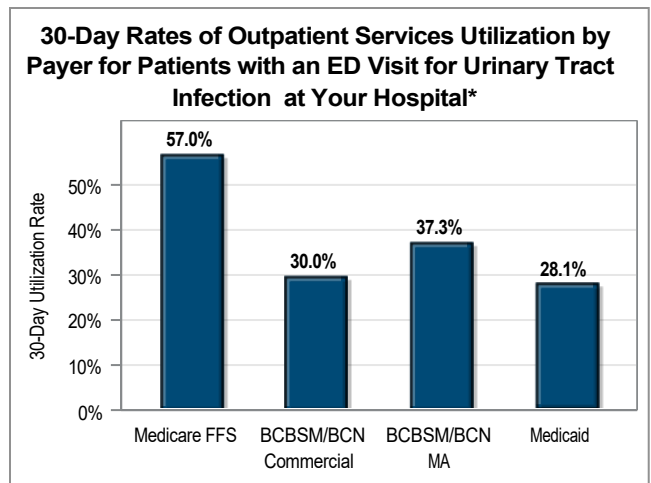
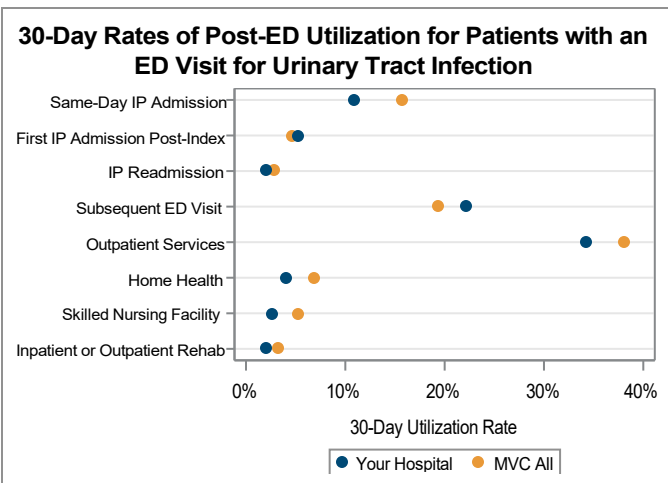
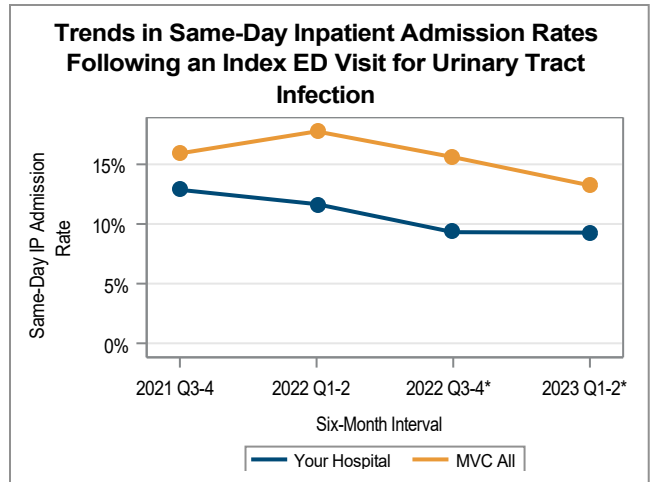
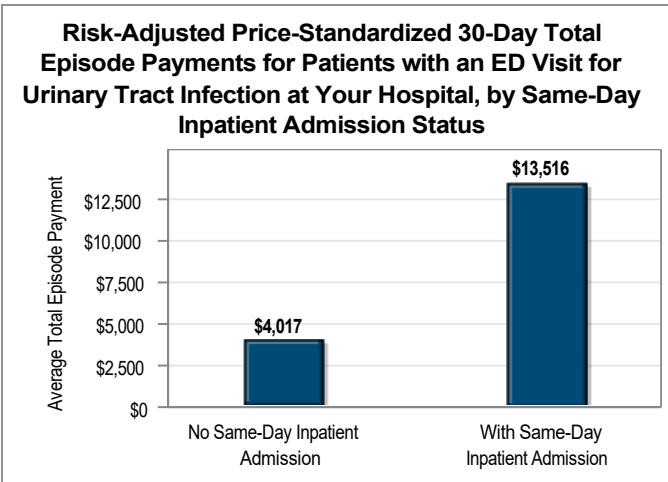
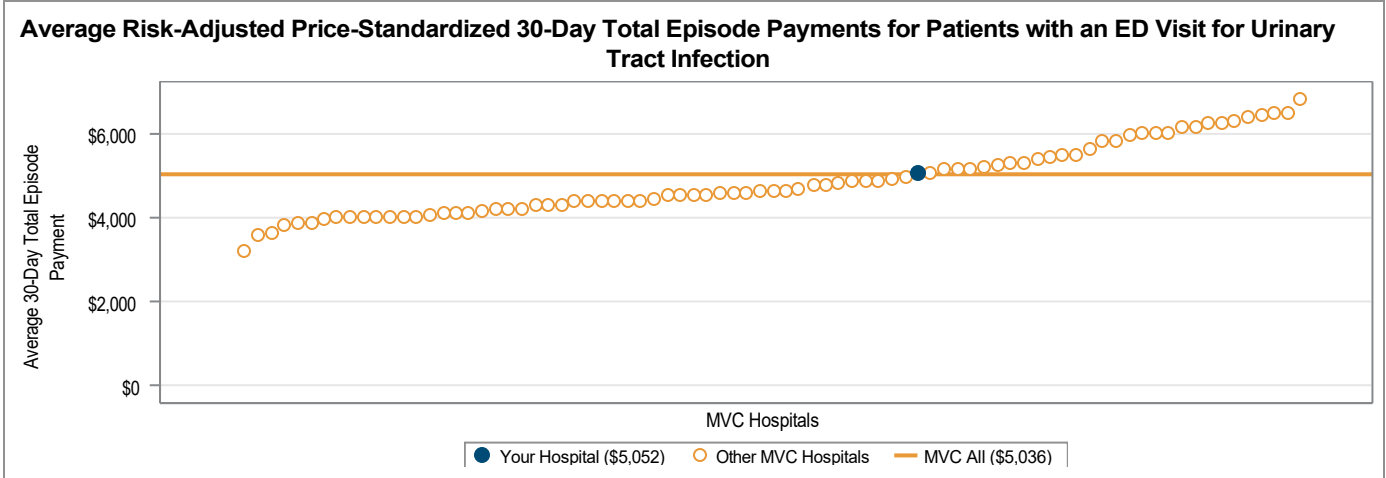
\*\*The figure is presented only for conditions with more than two payer categories, each having at least 11 episodes

Data source: MVC 30-day ED-based episodes with index events 07/01/2021 - 6/30/2023 (BCBSM PPO Commercial, BCN Commercial, BCBSM PPO MA, BCN MA, and Medicaid), 07/01/2021 - 11/30/2022 (Medicare FFS)

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## MVC ED-Based Episodes Report: Urinary Tract Infection Hospital A



\*Data from 2022 Q3-4 consists of partial Medicare data (index ED events through 11/30/22) and complete BCBSM, BCN, and Medicaid data. Additionally, data from 2023 Q1-2 consist of only index ED events paid for by BCBSM, BCN, and Medicaid

\*\*The figure is presented only for conditions with more than two payer categories, each having at least 11 episodes

Data source: MVC 30-day ED-based episodes with index events 07/01/2021 - 6/30/2023 (BCBSM PPO Commercial, BCN Commercial, BCBSM PPO MA, BCN MA, and Medicaid), 07/01/2021 - 11/30/2022 (Medicare FFS)

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## MVC Emergency Department-Based Episodes Fact Sheet

### What is an Emergency Department-based episode?

Michigan Value Collaborative (MVC) and the Michigan Emergency Department Improvement Collaborative (MEDIC) collaborated to create claims-based episodes of care that originate with a patient's visit to the emergency department (ED). These episodes encompass a patient's care received from the start of their index ED visit through 30 days post-index. Episodes are non-overlapping, meaning that a patient cannot initialize a new ED-based episode until 30 days after their most recent ED index event.

### How are index ED visits defined?

For these episodes, index ED visits are identified by facility claims containing revenue code 450, 451, 452, 456, or 459. Index claims containing ED revenue codes may be specific to the ED or claims that include inpatient admission to the hospital; in all cases the end date of the index claim marks the end of the index event. Claims containing ED codes are assessed for a primary diagnosis code meeting the criteria for one of MVC's ED-based conditions. Conditions that also exist in MVC's traditional admission/surgery-based episode structure (CHF, COPD, pneumonia, atrial fibrillation) are identified using identical diagnosis code inclusion/exclusion criteria. All other ED-based conditions have been defined using standardized Agency for Healthcare Research and Quality (AHRQ) definitions.

### Which payers do these data reflect?

MVC's ED-based episodes are currently available for claims from Medicare FFS, BCBSM PPO Commercial, BCBSM PPO Medicare Advantage, BCN Commercial BCN MA, and Michigan Medicaid.

### What is the age range of patients reflected in ED-based episodes?

ED-based episodes have been generated for both adults and children; each report will specify whether metrics were based on adult episodes only (ages 18+), pediatric episodes only (ages 0-17), or all ages.

### Do these measures impact my hospital's P4P score?

ED-based episodes do not affect the creation of admission/surgery-based episodes used to score hospitals in the MVC Component of the BCBSM Pay-for-Performance (P4P) Program. Metrics from ED-based episodes will not be used in the assessment of hospital metrics for P4P. However, we note that there may be some overlap in patient population. Quality improvement work aimed at ED-based episodes could impact admission/surgery-based episodes, and vice-versa.

### How can I utilize the data in this report?

We encourage you to share this report with quality improvement staff and leadership at your facility to identify opportunities to improve care for patients visiting your ED.



## Metric Interpretation Guide for MVC ED-Based Episodes Hospital Report

Data points for your hospital across this report are based on all ED-based episodes for adults aged 18+ with BCBSM, BCN, Medicaid, or Medicare FFS insurance plans with an index ED visit at your hospital for the given condition in the reporting period.

- Average Risk-Adjusted Price-Standardized 30-Day Total Episode Payments
  - An average of all risk-adjusted and price-standardized 30-day total episode payments for ED-based episodes. Total episode payments encompass payments for all care documented on facility and professional claims from the start of an index event through 30 days following the index event.
  - Payments have been price-standardized to Medicare FFS amounts and then risk-adjusted for patient age, gender, payer, prior six months of payments, and 79 hierarchical condition categories (HCCs).
- Average Risk-Adjusted Price-Standardized 30-Day Total Episode Payments, by Same-Day Inpatient Admission Status
  - Average risk-adjusted and price-standardized 30-day total episode payments for ED-based episodes among adults aged 18+ with BCBSM, BCN, Medicare FFS, or Medicaid plans with an index ED visit at your hospital for the given condition in the reporting period.
  - Data are shown for two groups: episodes in which the patient had an inpatient admission on the same day as their index ED visit and episodes in which the patient did not.
- Trends in Same-Day Inpatient Admission Rates Following Index ED Visits
  - By six month interval, this graph shows the percentage of ED-based episodes for a given condition at your hospital in which the patient had an inpatient admission on the same day as their index ED visit. The trend for collaborative-wide rates is shown for comparison.
- 30-Day Rates of Post-ED Utilization
 

The percentage of ED-based episodes attributed to your hospital in which the patient received a given category of care, as defined below:

  - Same-Day IP Admission: patient had an inpatient admission on the same day as their index ED visit
  - First IP Admission Post-Index: patient did not have an inpatient admission on the same day as their index ED visit but had an IP admission 1 to 30 days post-index ED visit
  - IP Readmission: patient had two or more inpatient admissions (thus, at least one readmission) during the episode of care
  - Subsequent ED Visit: patient had at least one secondary ED visit post-index ED visit
  - Outpatient Services: outpatient services received in 0 to 30 days post-index
  - Home Health: home health care received in 0 to 30 days post-index
  - Skilled Nursing Facility: skilled nursing facility care received in 0 to 30 days post-index
  - Inpatient or Outpatient Rehab: inpatient or outpatient rehab received in 0 to 30 days post-index
- Post-ED Outpatient Utilization
  - This figure shows the payer-stratified percentage of ED-based episodes for a given condition at your hospital in which the patient used outpatient services in the 0 to 30 days following their index ED visit. Outpatient services are identified by outpatient facility claims other than claims containing outpatient rehab or ED care. Notably, this figure is generated only for conditions with more than 11 episodes involving at least 2 payers within the hospital