

HAVE COMMUNITY HOSPITALS BEEN MORE SUCCESSFUL IN RETAINING LOCAL CARE AFTER AFFILIATING WITH LARGER HEALTH CARE SYSTEMS?

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INTRODUCTION AND RESEARCH OBJECTIVE

An increasing share of inpatient care in Massachusetts is delivered in major teaching hospitals rather than in lower-cost community (non-teaching) hospitals, including care which does not appear to require the resources of a major teaching hospital. To better monitor this trend, the Health Policy Commission (HPC) created a list of Diagnosis-Related

Groups (DRGs) representing lower-acuity, or “community-appropriate,” discharges (CADs) that could be appropriately treated in practically any Massachusetts community hospital. We then used this definition of CADs to examine whether more community-appropriate inpatient care was retained at lower-cost community hospitals after affiliations between

community hospitals and systems anchored by major teaching hospitals. For all of the recent affiliations examined, the parties stated that a goal of the transaction was keeping more care in the community.

STUDY DESIGN

COMMUNITY-APPROPRIATE DEFINITION METHODOLOGY

Data sources: 2015 Massachusetts Hospital Inpatient Discharge Database (HIDD) and MS-DRG version 32 grouper.

Figure 1 details the DRG exclusions used to generate the community-appropriate list. The final list of community-appropriate DRGs includes 94 DRGs, which represent 41 percent of the inpatient discharges in Massachusetts in 2015.

Community hospitals accounted for 53.6% of all hospital discharges in Massachusetts in 2015. Community hospitals accounted for 57.8% of CADs, as defined in Table 1.

FIGURE 1

Exclusion Steps	Number (Percent) of DRGs Remaining	Number (Percent) of Statewide Discharges Remaining
1. All discharges from general acute care hospitals in 2015 (specialty hospitals excluded)	753 (100%)	765,634 (100%)
2. Intensity exclusions - DRGs that are too clinically intensive or specialized for appropriate treatment in many community hospitals based on consultation with clinical experts, e.g., organ and bone marrow transplants, major chest procedures, serious extensive burns, major trauma procedures, most cardiac surgeries.	370 (49%)	524,709 (68%)
3. DRGs with a description of CC (complications or comorbidities) or MCC (major complications or comorbidities)	248 (33%)	390,176 (51%)
4. Normal newborns (DRG 795), to avoid double-counting a maternity discharge	247 (33%)	347,577 (45%)
5. DRGs with statewide volume <500 discharges at general acute care hospitals in 2015	95 (13%)	316,990 (41%)
6. DRGs for which community hospitals collectively had <15% of statewide volume	94 (12%)	315,360 (41%)

TRANSACTION LOOK-BACK METHODOLOGY

We examined thirteen transactions that occurred between 2011 and 2015, including three types of transactions:

- Independent community hospital joined a system that included a major teaching hospital;
- Independent community hospital began contracting through a system that included a major teaching hospital; and
- Community hospital changed affiliation (either corporate or contracting) from one system with a major teaching hospital to another.

We applied the list of community-appropriate DRGs, then removed certain individual discharges to prevent

double-counting of transfers and inclusion of transfers to major teaching hospitals (where we assume the specific patient needed more complex care), and to ensure we are only examining data for Massachusetts residents experiencing acute, medical (not psychiatric or rehabilitation) hospitalizations.

We then measured the proportion of residents of each community hospital's primary service area that used each community hospital (the “focal” community hospital) and the proportion that used the “anchor” major teaching hospital, both before and after the transaction in which the community hospital affiliated with the system that included the anchor hospital. We used proportions of discharges going to each hospital rather than actual volume in order to control for changes in overall inpatient volume. We also compared these results to the changes in the share

of community-appropriate care delivered at community hospitals *statewide* during the same time period used for each transaction.

DEFINITIONS

- Primary service area:** The contiguous region from which a hospital draws 75% of its commercial inpatients, based on patients' zip codes of residence. Zip codes are sorted by drive time, zip codes that send fewer than 1% of their commercial discharges to the hospital are excluded, and internal zip codes are added in.
- The “before” period:** The 365 days immediately before each transaction's effective date.
- The “after” period:** The most recent 365 days in the FY 2016 HIDD (October 1, 2015 to September 30, 2016).

RESULTS

We found that statewide, community hospitals perform a higher share of CADs than do major teaching hospitals. However, as seen in **Figure 2**, community hospitals' collective share of CADs declined slightly from 2009 to 2016. During the same time period, major teaching hospitals have treated an increasing share of CADs.

When we examined trends for community hospitals that joined larger provider networks, we did not generally find that the combined systems did a better job ‘keeping care in the community’ relative to the statewide trend.

Figure 3 shows the change in shares of *local* CADs going to the focal community hospital, the major teaching hospital with which the community hospital affiliated (hospital system anchor), and the change in the statewide trend of CADs going to all community

hospitals statewide during the same time period for each transaction.

- Out of thirteen transactions, the community hospital's share of local CADs only increased in four cases, all of which were corporate mergers of previously independent community hospitals.
- Where community hospitals' shares decreased, the reductions were greater than, or in one case equal to, the change in the statewide average during the same time period.

We also examined shares of discharges that were not defined as “community-appropriate” under our definition, to examine the possibility that systems were specifically focused on increasing community hospital shares of higher-acuity care. **Figure 4** shows results for these discharges for the same categories as Figure 3.

- We did not find instances of community hospitals making up for their reduced share of local CADs with an increased share of higher-acuity local discharges; all but one community hospital with a

declining share of CADs also had a declining share of higher-acuity discharges, although in some cases to a lesser extent. Community hospitals with a growing share of CADs also had a growing share of higher-acuity discharges.

- For both CADs and higher-acuity discharges, anchor major teaching hospitals' shares of local care tended to increase more than community hospitals' shares.

FIGURE 2: Distribution of Community-Appropriate Discharges, 2009-2016

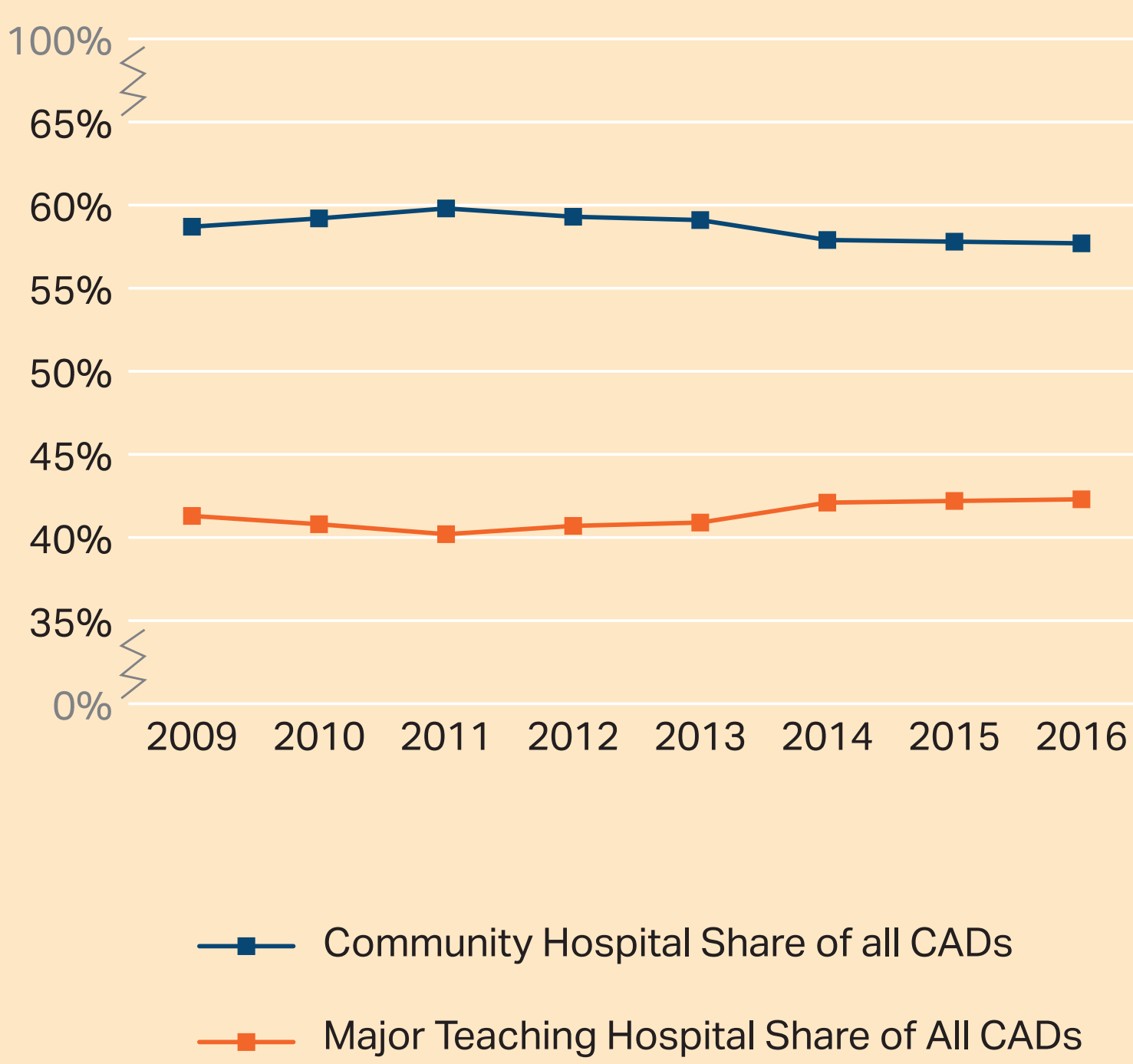


FIGURE 3: Difference between pre-transaction and post-transaction shares of local community-appropriate discharges

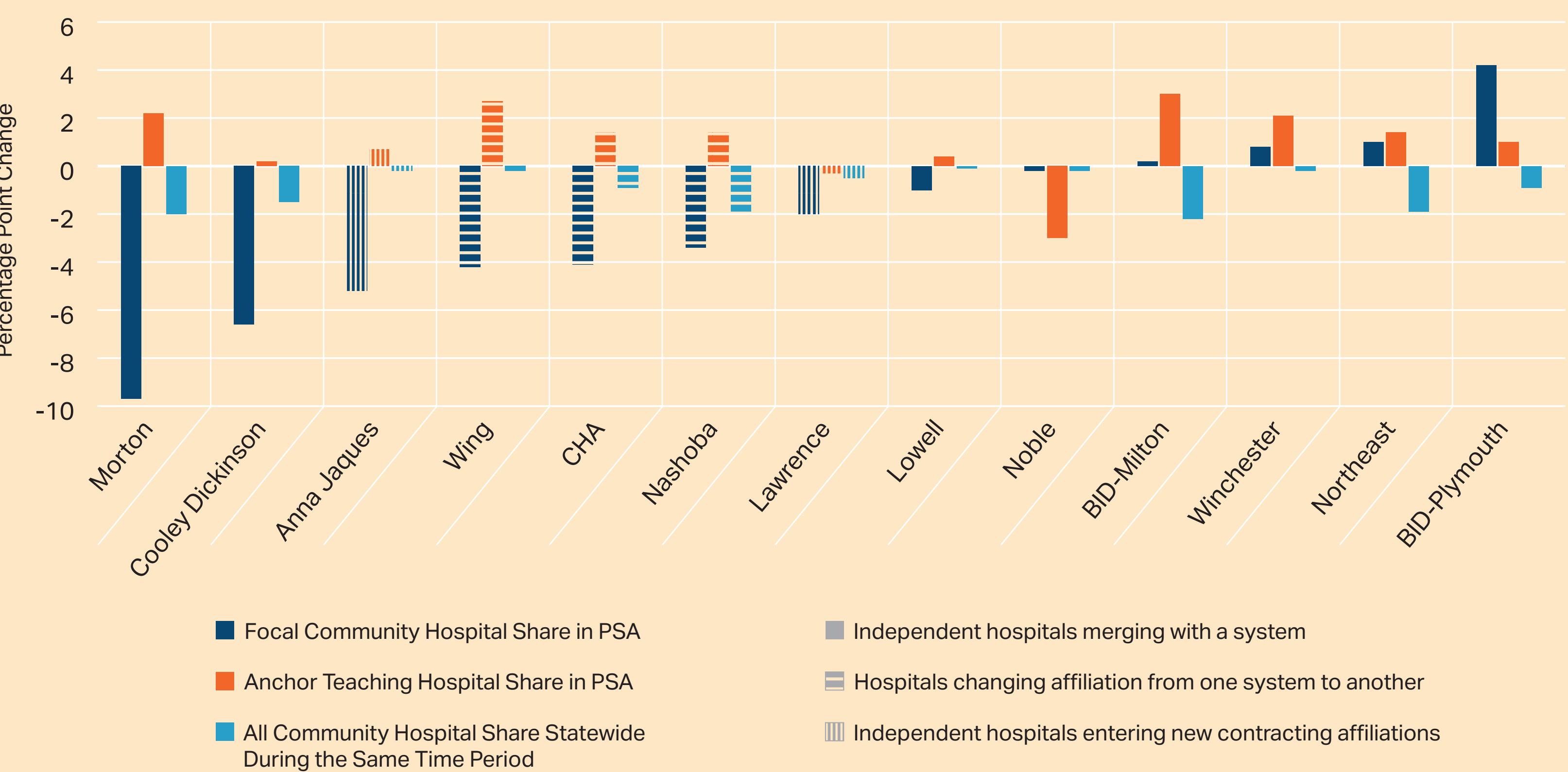
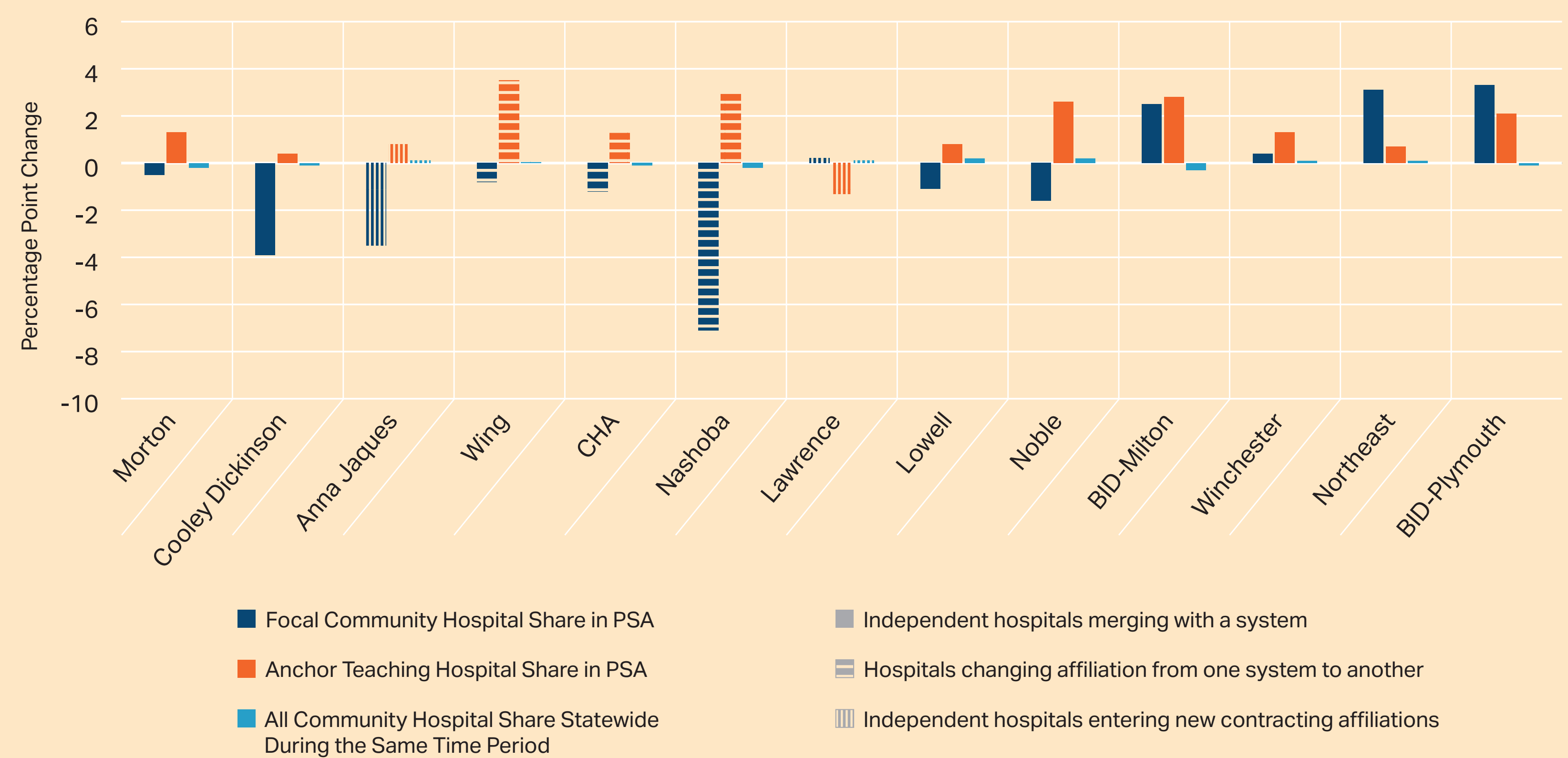


FIGURE 4: Difference between pre-transaction and post-transaction shares of higher-acuity local discharges



CONCLUSIONS AND POLICY IMPLICATIONS

We did not find evidence that provider systems are generally shifting local inpatient care from anchor major teaching hospitals to newly-affiliated community hospitals, although in some cases community hospitals and their affiliated major teaching hospitals both increase their share of local discharges.

Given the potential effects, on both cost containment and access to care, of keeping appropriate care in community rather than major teaching hospitals, it is important to continue monitoring changes in the distribution of CADs, in Massachusetts and nationally. The HPC's working definition of CADs may be a valuable tool in this ongoing evaluation.

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