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Accountable Care Organization Participation Among Hospitals Offering Substance Use Disorder and Mental Health Services in 2016

Michal J. McDowell, MD, MPH,
Harvard Medical School Boston, MA,

Alisa B. Busch, MD, MS,
McLean Hospital, Department of Psychiatry Belmont, MA

Aditi P. Sen, PhD,
Johns Hopkins Bloomberg School of Public Health, Department of Health Policy and Management Baltimore, MD

Elizabeth A. Stuart, PhD,
Johns Hopkins Bloomberg School of Public Health, Department of Mental Health Baltimore, MD

Lauren Riedel, BA,
Harvard Medical School, Department of Health Care Policy Boston, MA

Colleen L. Barry, PhD, MPP, and
Johns Hopkins Bloomberg School of Public Health, Department of Health Policy and Management Baltimore, MD

Haiden A. Huskamp, PhD
Harvard Medical School, Department of Health Care Policy Boston, MA

Abstract

Accountable Care Organizations (ACOs) have the potential to improve value in behavioral health (BH) care. Little is known about the likelihood of ACO participation among hospitals with BH services. We explore statistical predictors of ACO participation among hospitals, particularly those offering BH services. After adjusting for other hospital characteristics, BH specialty hospitals were less likely and general hospitals with BH services were more likely than general hospitals without BH services to participate in an ACO. A better understanding of barriers to ACO participation within BH specialty hospitals and how ACO participation may affect quality of BH care is needed.

Despite the burden of morbidity and mortality associated with the opioid epidemic and mental illness, the health system response to these public health challenges has been incomplete. Integration of behavioral health (BH) care delivery in medical settings has the potential to improve health outcomes and save costs compared to traditional models with fragmented systems.[1] One such integrated model is the Accountable Care Organization (ACO), which offers flexible financial structures in return for accepting responsibility for care costs of patients assigned to the ACO.[2] Because ACOs are typically held accountable for total expenditures, they have the potential to improve value in BH. Alternatively,

concerns have been raised that ACOs could worsen quality for BH and incentivize care stinting.[3]

The ACO model could motivate hospitals to move BH payment structures away from fee-for-service, instead incentivizing coordinated care.[1,2] ACO efforts to incorporate substance use disorder and other BH care have been limited; only 15% of outpatient substance use disorder treatment programs participate in ACO contracts.[1] Limited studies exploring the impact of ACOs and risk-based payment arrangements on BH utilization, outcomes, and care costs have shown few effects.[3,4] Potential reasons for null findings include inadequate BH performance measures in the payment contracts and provider shortages.[3,4]

Existing work has documented a number of determinants of ACO participation, including prior experience with risk-based payments and care management programs, advanced health information technology, and location in higher-income, urban areas.[5–7] Organizational characteristics such as non-profit status, electronic health records implementation, and general medical/surgical hospital type have also been associated with ACO participation.[6] No studies have explored the relationship between the provision of BH services and ACO participation; this cross-sectional study aims to fill that gap.

Data and procedures

We used data from the 2016 American Hospital Association (AHA) Annual Survey of Hospitals to explore characteristics of and BH services offered by hospitals that have participated in ACO contracts. There were 6,239 responding hospitals located within the 50 states and the District of Columbia. Of these, we excluded 214 federal hospitals, as they are unlikely to have participated in an ACO, and 68 hospitals outside the U.S. Because we focused on ACO participation for BH specialty hospitals and general medical/surgical hospitals, we excluded 1,010 hospitals of other types (e.g., surgical, cancer, heart, rehabilitation). This exclusion was made based on the survey item regarding the category that best described the hospital or type of service provided to the majority of patients.

Among the 4,947 hospitals that met the inclusion criteria, 73% responded to the ACO participation Annual Survey item and were included in our final study cohort. Characteristics of hospitals that did not answer this item are available upon request. Our final sample included 262 BH specialty hospitals, 1,882 general hospitals with BH services, and 1,505 general hospitals without BH services.

The outcome of interest was ACO participation. We used responses to an item on the Annual Survey, which reads “[H]as your hospital or health care system established an accountable care organization?” Among hospitals that reported establishment of an ACO, an additional item read “[I]f yes, please indicate the patient population that participates in the ACO.” We use the word “participate” to describe hospital or health system involvement in an ACO contract.

We divided hospitals into three types: psychiatric and substance use disorder specialty hospitals (i.e., BH specialty hospitals), general medical/surgical hospitals (i.e., general hospitals) with psychiatric and/or substance use disorder services (i.e., BH services), and

general hospitals without BH services. Hospitals were categorized as BH specialty hospitals if they selected either “alcoholism and other chemical dependency” or “psychiatric” as the category that best described the hospital or the type of service provided to the majority of patients; for general hospitals, respondents selected “general medical and surgical.”

To categorize general hospitals based on whether they provided BH services or not, we used items regarding the inpatient and outpatient facilities and services offered. We categorized general hospitals as offering BH services if they provided “alcohol-drug abuse or dependency care,” “psychiatric care,” or “alcoholism-drug abuse or dependency outpatient services.”

We also included five hospital characteristics in analyses: total staffed beds (<100, 100–399, ≥ 400), teaching status, rural designation, region, and ownership (non-government/non-profit, nongovernment/for-profit, government/non-federal). We categorized entities as teaching hospitals if they responded positively to at least one of five items pertaining to residency training approval, American Medical Association affiliation, Association of American Medical Colleges membership, American Osteopathic Association internship approval, and American Osteopathic Association residency approval. Urbanity was measured using a three-part designation in the survey: rural, micro, and metro. We constructed a binary measure, with rural status as one group, and micro and metro respondents as non-rural.

We used descriptive statistics to compare characteristics of hospitals reporting they participated in an ACO versus those reporting that they had not done so. We used logistic regression to identify factors associated with ACO participation. The Institutional Review Board approved all study procedures.

Findings

As summarized in the first table in the online appendix, 36% of hospitals reported that they had participated in an ACO. Rates of ACO participation were 46% for general hospitals with BH services, 29% for general hospitals without BH services, and 8% for BH specialty hospitals (p=<0.0001).

Of the 856 general hospitals offering BH services that participated in ACOs, 2% offered substance use disorder services but no psychiatric services, 65% offered psychiatric services but no substance use disorder services, and 33% offered both substance use disorder and psychiatric services. Similarly, of the 1,026 not participating in an ACO, 3% offered substance use disorder but not psychiatric services, 77% offered psychiatric but not substance use disorder services, and 20% offered both (data not shown).

Controlling for other hospital characteristics, BH specialty hospitals were less likely than general hospitals without BH services to have participated in an ACO (OR= 0.252, 95% CI=0.155, 0.410) (see the second table in the online appendix). General hospitals offering BH services were more likely than general hospitals not offering BH services to have participated in an ACO (OR=1.218; CI=1.024, 1.449). Consistent with the unadjusted results in the first table in the online appendix, larger hospitals, teaching hospitals, and non-rural

hospitals were more likely to have participated in an ACO. We also found regional differences. For example, the odds of participating in an ACO were higher for hospitals in New England than in the West South Central region (OR=3.545; CI=2.307, 5.448). Government/non-federal hospitals and non-government/for-profit hospitals were less likely to participate in an ACO relative to nongovernment/non-profit hospitals (OR=0.412, CI=0.334, 0.508 and OR=0.254, CI=0.192, 0.336, respectively).

Among BH specialty hospitals with any ACO relationships, 43% had Medicaid ACO patients, 57% had private insurance ACO patients, and 81% had Medicare ACO patients (data not shown). The public payer mix for general hospitals that offer BH services versus general hospitals that do not was similar, with about one-quarter reporting Medicaid ACO patients and slightly more than 80% reporting Medicare ACO patients. The share accepting private insurance was higher among general hospitals offering BH services relative to those without BH services (54% versus 43%).

Implications for value in behavioral health

ACOs represent a mechanism for care systems to improve value.[2] We found BH specialty hospitals were much less likely than general hospitals to have participated in an ACO. This may be because general hospitals are better equipped to provide coordinated health services and take on risk for a defined population.[6] In 2014, 61% of psychiatric inpatient stays occurred in psychiatric specialty hospitals, whereas only 30% occurred in general hospitals with separate psychiatric units.[8] Thus, the potential benefits associated with ACO participation may not be being fully transmitted to populations served by BH specialty hospitals. Our finding that general hospitals offering BH services were more likely than general hospitals without BH services to have participated in an ACO may indicate that hospitals offering a broader array of services have greater opportunity to optimize care.[5]

Several characteristics were significantly associated with ACO participation, including size, teaching status, region, ownership, and urbanity. Larger hospitals, which require increased human and capital resources, may have more options for increasing the value of care provided in a cost-saving manner as compared to smaller hospitals.[6] Teaching hospitals may similarly have higher administrative capabilities, facilitating ACO participation. Consistent with previous research, we found greater ACO participation in New England relative to other regions of the country, perhaps due to a more robust non-profit hospital sector.[5] Non-profit hospitals may participate in ACOs to share financial risk with other providers, whereas for-profits may delay until a demonstrated profit margin is shown.[6] Finally, regarding urbanity, organizations in rural areas may have less capacity to make investments necessary to implement ACOs.[9]

Across the three types of hospitals – BH specialty hospitals, general hospitals with BH services, and general hospitals without BH services – the most common patient population to participate in ACOs is Medicare patients, with 84% of ACO hospitals having Medicare patients (presumably from the Medicare Shared Savings and Pioneer programs) in their ACO.

Commercially-insured patients were also common participants in ACO arrangements undertaken by hospitals of each of the three types. The proportion of Medicaid patients included in ACO arrangements may increase over the next few years, as several states are implementing ACOs for Medicaid populations. Interestingly, the proportion of BH specialty hospitals in ACOs that include Medicaid patients (43%) was higher than the proportion of general hospitals with ACOs serving these patients (approximately one-quarter). BH conditions disproportionately impact low-income communities, and Medicaid is a major source of insurance coverage for low-income Americans.[10] As the one of the nation's largest payer for behavioral health, the higher rates of Medicaid inclusion in BH specialty hospital ACO arrangements make sense.[10]

Our findings have important implications about the ability to respond to the opioid crisis. Of the 3,387 general hospitals, 1,505 (45%) offered no BH services; of those that did offer some BH services, just 531 (16%) offered substance use disorder services. In other words, the majority of general hospitals do not provide treatment services for substance use disorders. To comprehensively address the epidemic, improved access to substance use disorder treatment is needed.

This study has several limitations. One-quarter of hospitals did not provide information on ACO participation; the proportion of BH specialty hospitals that did not provide this information was higher relative to general hospitals (51% of BH specialty hospitals, relative to 38% of general hospitals without BH services and 6% of general hospitals with BH services). Second, these analyses are observational and cannot be used to draw causal conclusions. Finally, survey responses reflect only the perspective of one administrator at each organization.

Future research should explore reasons for low rates of ACO participation among BH specialty hospitals. Understanding the barriers to ACO participation is important in supporting psychiatric and substance use disorder treatment hospitals in improving value.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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