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Dental Care Within Accountable Care Organizations: Challenges and Opportunities

Author: Carrie H. Colla, Ph.D.; Courtney Stachowski, M.P.H.; Souma Kundu; Benjamin Harris; Gregory Kennedy, M.Sc.; Marko Vujicic, Ph.D.

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Key Messages

- *Most accountable care organizations (ACOs) are not responsible for dental care as part of their ACO contract. Nine percent of the largest commercial contracts and 25 percent of Medicaid contracts hold providers responsible for the cost and quality of dental services.*
- *The top reason ACOs report for excluding dental care is a lack of integrated health information technology. The perceived potential for cost savings associated with dental care is the top motivation among ACOs that include or plan to include dental care.*
- *Despite research suggesting that integration of dental care may benefit patients, financing and delivery of dental care remains disconnected from other health services, even among ACOs working to improve overall population health. Integration of dental care may present an opportunity for improved accountability for total health, yet to date, there is little incentive for ACOs to facilitate access to these services.*

Introduction

Since the passage and enactment of the Affordable Care Act (ACA), nearly 17 million previously uninsured Americans have gained access to health care through the creation of health insurance exchanges and the expansion of Medicaid.[1] The current landscape of health care has been further shaped by the adoption of value-based payments and contracts that increase provider accountability for cost and quality.[2] At present, 20 percent of Medicare payments are made under alternative payment models, and the Centers for Medicare and Medicaid Services (CMS) have pledged to increase that number to 90 percent by 2018.[3] Ultimately, these changes in health policy highlight the growing pressure on health care systems to deliver high-value services across the spectrum of care.

To address this demand, health care systems are collaborating to form new payment and

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delivery models such as accountable care organizations (ACOs). An ACO is a group of physicians, hospitals and other health care providers who collectively and contractually share responsibility for a defined patient population's total cost and quality of care.[4-10] Early research into this model shows that ACOs have had a mixed impact on the cost and quality outcomes of their respective patient populations,[6,11-13] but they have begun to serve as a successful mechanism for integration of fragmented provider groups.[9,10]

Dental care has been historically bifurcated from traditional health services. This is seen with payers through the distinction of dental insurance from most health insurance and with providers through the separation of dental providers from most hospitals and multispecialty physician groups. In 2010, 2.1 million visits to the emergency department for dental conditions cost between $867 million and $2.1 billion dollars.[14] Lack of adequate dental care has also had a significant impact on population health: between 25-50 percent of children under 15 and nearly 25 percent of adults ages 20-64 suffer from untreated dental decay, while 25 percent of adults over the age of 65 have lost all of their teeth, risking poor nutrition and additional complications.[14] The burden of poor oral health disproportionately impacts low-income communities due to barriers of access and cost,[15] yet current health policy offers little to assuage the problem, with only 27 states covering preventive dental services within their Medicaid programs.[15]

The most compelling argument for greater integration of oral and systemic health is based on the potential benefits of early detection and preventive health. Researchers have identified oral inflammation, bleeding and other symptoms observed during routine oral health exams as signs of systemic health problems such as coronary disease, kidney disease and diabetes. Early detection of oral symptoms of these diseases may allow for earlier diagnosis, treatment and reductions in downstream health care spending.[16,17]

In a series of case studies of ACOs providing dental services, researchers found that organizational and technical coordination challenges were major hindrances to dental services integration.[18] However, further observation suggested that integration of dental services assisted providers in addressing care gaps for patients and in reducing the use of emergency services through enhanced preventive dental care.[18] Though synergies may exist between dental and health care – and early evidence indicates that some dental providers and services are being integrated into ACOs – motivations for dental inclusion, the scope of dental services provided, and the patient populations served remain unclear.[19]

This research brief examines the extent of dental care inclusion by ACOs, the motivations of ACOs for including or excluding dental care, the types of dental services ACOs choose to provide, and the patient populations served by ACOs accountable for dental care. We also discuss the potential policy implications of our findings.

Data & Methods

National Survey of ACOs (NSACO)

Our analysis of dental care inclusion in ACO contracts is based on data collected from the National Survey of Accountable Care Organizations (NSACO), created in collaboration with researchers at the University of California, Berkeley and administered by The Dartmouth Institute. The NSACO is the first and only national survey to comprehensively study the formation, characteristics and implementation of ACOs. Topics covered in the survey include organizational characteristics, contract features, health information technology, and quality improvement capabilities. The NSACO is administered online, targeting key executives within ACOs who have a broad understanding of the organization. The first wave of the NSACO was fielded from October 2012 to May 2013, the second wave from

October 2013 to March 2014, and the third wave from August 2014 to June 2015. We analyze data from all three waves.

Survey Population

We used the following data sources to identify new ACOs formed prior to the start of each wave: publicly available Medicare and Medicaid contract information, learning collaborative participants, national surveys, published case studies, and press releases on ACO contracts. We employed a set of screening questions at the beginning of our survey to confirm that the organization met our definition of an ACO: a group of providers collectively held responsible for the total cost and quality of care for a defined patient population in at least one contract.[4-10] A total of 780 organizations were deemed eligible to participate in the survey. Of these potential participants, 618 organizations completed a set of screening questions designed to confirm their designation as an ACO, and of the 618 organizations that were screened, 398 were confirmed as ACOs and completed the full survey. The response rate across the three waves of the survey was 64 percent.

Measures and Analyses

The survey contains three categories of questions about dental services: 1) contractual responsibility for dental services, 2) specific dental services provided and patient populations served, and 3) motivations to include or exclude dental services in the ACO. However, not every wave of respondents was asked questions from each category.

Wave 1 asked questions regarding the contractual responsibility for dental care in the ACO's largest commercial contract. A follow-up survey was administered to the Wave 1 respondents two years after the original survey regarding contractual responsibility for dental services in their largest current commercial and Medicaid contracts, as well as services provided, populations served, and motivations for dental inclusion or exclusion. Wave 2 asked questions regarding contractual responsibility for the ACO's largest commercial and Medicaid contract. Wave 3 asked questions regarding the contractual responsibility for largest commercial and Medicaid contract, as well as services provided, populations served, and motivations for dental inclusion or exclusion. ACOs were not asked any questions related to dental care for Medicare contracts because dental services are not covered by Medicare insurance and therefore are not included in Medicare ACO contracts.

The unit of analysis for this brief varies between the ACO and individual ACO contracts. It is important to note that in the cases when the unit of analysis is an ACO contract, contract payer groups are not mutually exclusive. A single ACO may have both a commercial contract and a Medicaid contract for which they are responsible for dental services. For clarity, the unit of analysis considered for each section of results is marked under the figure or table it corresponds to.

Across all three waves of the survey, 215 ACOs responded to questions regarding their contractual responsibility for dental care within their largest commercial and Medicaid contracts. ACOs that do not contain one or more commercial contracts or Medicaid contracts were not asked questions regarding their dental inclusion status. Fourteen percent of ACOs who were asked the dental care questions indicated that they are responsible for dental services in at least one contract. We compared organizational characteristics (structure, leadership, staffing) of ACOs that are responsible for dental care to those that are not. Across the Wave 3 and the Wave 1 follow-up surveys, 183 ACOs responded to questions regarding the types of dental services they provide, patient populations they serve, and their motivations for including or excluding dental services within their largest overall contract and Medicaid contracts. We used two-tailed t-tests and chi-square analysis to determine the significance of observed differences between the two cohorts.

Limitations

The results of this study must be interpreted in the context of its limitations. First, only Wave 1 and Wave 3 survey respondents were asked about the dental services provided, patient populations served, and motivations for dental care inclusion or exclusion within their largest overall contract and Medicaid contract. These questions were not asked of their other commercial contracts. Additionally, our survey population consists solely of ACOs with publicly available contract information, thus excluding commercial contracts from this study that are not publicly identified.

Results

Among ACOs surveyed between October 2012 and June 2015, 57 percent hold a commercial contract. Only 9 percent of these ACOs with commercial contracts include responsibility for the cost and quality of dental services. Within Wave 1 (ACOs formed prior to September 2012), 7 percent of ACOs with a commercial contract include dental services compared to 14 percent of Wave 2 ACOs (formed between September 2012 and July 2013) and 9 percent of Wave 3 ACOs (formed between July 2013 and September 2014).

Across all ACOs, 23 percent are responsible for both cost and quality of care for Medicaid patients.[1]

ACOs are more likely to include responsibility for the cost and quality of dental services in Medicaid contracts (25 percent) compared to commercial contracts (9 percent). Within Wave 1, 40 percent of ACOs with a Medicaid contract include dental services in that contract, compared to 29 percent of Wave 2 ACOs and 17 percent of Wave 3 ACOs.

Among the ACOs that are responsible for dental services in at least one contract, 35.5 percent include dental services in only their largest commercial contract, 35.5 percent include dental services in only their Medicaid contract(s), and 29 percent include dental services in both their largest commercial and Medicaid contracts (Table 2).

ACOs that are responsible for the cost and quality of dental services are significantly more likely to contain a Federally Qualified Health Center; vision, hearing and speech services; and substance abuse services. Several other characteristics were considered in this analysis, including the likelihood of providing behavioral health services and having rural health centers, ambulatory surgery centers, and National Cancer Institute-designated cancer centers. However, there were no significant differences (Table 3).

ACOs were asked if they plan to integrate dental providers directly into their care team. Only 4 percent of ACOs responded that they are currently doing so. Among ACOs that do not currently integrate dental providers within their care team, the vast majority – 87 percent – indicated that they do not plan to integrate in the future.

Among ACOs that include or plan to include dental services, the top three motivations for inclusion are: the potential for improved oral health to generate cost savings, the identified high need among patients, and the consideration of dental care as a core primary care service (Table 4). Additional motivations include the perceived high impact on ACO performance measures and the recognition of dental services as a reliable payment source. The top three motivations for excluding dental services are: the lack of integrated health information technology, not considering dental care as a core primary care service, and the belief that dental care

[1] The original Wave 1 survey instrument did not contain a question about dental arrangements in the Medicaid section; therefore, the numbers in this section reflect the subset of Wave 1 respondents who responded to a follow-up survey containing dental questions.

has limited impact on key ACO performance measures (Table 4).

Dental Services Provided, Populations Served, and Care Delivery Models

Among ACOs that include or plan to include dental services, the types of dental services provided by the ACO are, in descending order of frequency: diagnostic and preventive services, basic restorative services, emergency or urgent dental care, major restorative services and orthodontic services (Table 5). Dental services are provided to a wide age range of patients within ACOs that include or plan to include dental services. The majority of ACOs that include or plan to include dental services are utilizing facilitated referral as their primary service delivery model. Less than half of ACOs have on-site dental employees.

Discussion

Health care reform in the U.S. has advanced innovation in delivery models, including integration of health care services and coordination across traditionally fragmented providers and settings. Accountable care organizations are a prominent model through which this integration is occurring.[9,10] While dental care has traditionally been paid for and delivered separately from other health care services, with little communication or coordination between providers, the shifting payment landscape is providing new opportunities to re-examine this separation.

Our findings indicate that responsibility for the cost and quality of dental services is not part of the majority of ACO contracts. Medicaid ACO contracts are nearly three times more likely to include dental care than commercial ACO contracts. But even among Medicaid contracts, less than one in four include responsibility for the cost and quality of dental services at this time. The majority of ACOs that do not currently integrate dental providers directly into the care team do not intend to integrate them in the future. Where dental care is included in ACO contracts, it is most likely to be in the form of facilitated referral.

The most insightful component of our research is the exploration of motivating factors in ACO decision-making regarding dental care. The top reason ACOs report for not including dental care is information technology. This finding suggests an important structural barrier to the provision of services at the institutional level. It is also noteworthy that several motivations for including dental care within ACOs are the same motivations for not including dental care. For example, the perceived potential for cost savings (or lack of cost savings) and the perception of dental care as a core primary care service (or not seen as core primary care) appear on both lists. This suggests that motivations could be driven by differences in the patient populations an ACO serves or a faulty understanding of the link between oral and systemic health outcomes, either due to a lack of rigorous evidence or a lack of awareness of existing evidence among ACO leadership.

ACO leaders and dental providers face the challenge of coordinating care that has been historically fragmented. Fortunately, this challenge is not unique to the subspecialty of oral health. Under ACOs, a similarly fragmented subspecialty of care – behavioral health – has made strong progress in overcoming the silo effect of historical separation.[14] Both oral health and behavioral health share commonalities in the important roles they play in young adult health, chronic medical conditions, and lifelong consequences of lack of treatment.[20] Researchers studying the comparative effectiveness of integrated treatment for primary care, mental health, specialty health, and behavioral health conditions have found improved outcomes at little to no increased cost.[21,22] The early successes of behavioral health integration may provide a useful example for oral health integration efforts to follow.

As delivery and payment models evolve in the U.S. health system, ACO leaders and dental care providers have the opportunity to re-examine the linkage of dental care with other health care services to improve health outcomes and patient experience. Better coordination of oral care should be motivated by the opportunity to improve population health through preventive dental care and oral screening while reducing costs of emergency department visits and late stage treatments. Thus far, ACO leaders and dental providers have been slow to integrate dental services into patients' broader health care, despite the indication of potential benefits to patients.

Table 1: Dental Services Survey Category by Contract Type and Survey Wave

	ACO Survey Category	NSACO Wave 1	NSACO Wave 2	NSACO Wave 3
Contractual Responsibility	Largest commercial contract	Yes	Yes	Yes
	Medicaid contract	Yes*	Yes	Yes
Services Provided and Populations Served	Largest Overall contract	Yes*	No data collected	Yes
	Commercial contract	No		No
	Medicaid contract	Yes*		Yes
Motivations for Inclusion or Exclusion	Largest Overall contract	Yes*	No data collected	Yes
	Commercial contract	No		No
	Medicaid contract	Yes*		Yes

*Respondents were asked these questions in a follow-up survey.

Table 2: Dental Service Inclusion by ACO Contract Type

ACO Contract Type	ACOs With Dental Services (N=31)
Commercial Only	35.5%
Medicaid Only	35.5%
Commercial and Medicaid	29.0%

Table 3: ACO Organizational Characteristics by Dental Service Inclusion Status in Largest Commercial or Medicaid Contract

	ACOs with Dental Services (N= 31)	ACOs without Dental Services (N= 184)
ACO Structure		
Hospital	71%	70%
Specialty group	61%	59%
Federally Qualified Health Center	45%*	25%
Nursing facility	35%	23%
Public Hospital	29%	14%
Services Included in ACO Total Cost of Care Calculation		
Vision, Hearing, Speech	81%*	56%
Mental Health/Substance Abuse	71%*	61%
Leadership Structure		
Physician-led	45%	47%
Other arrangement[2]	55%	53%
Mean Number of Full-Time Equivalents (FTEs)		
Primary care providers	239	199
Specialists	236	353
Mean Number of Services Provided	**4.9**	**4.8**

Note: ACOs were asked if they were contractually responsible for the cost and quality of dental services in their largest commercial contract or Medicaid contract across all three survey waves. We analyze the organizational characteristics based on an ACO's contractual responsibility across all three waves' respondents. The unit of analysis in this table is an ACO. ACOs that contain both commercial and Medicaid contract are only counted once based on overall dental inclusion or exclusion. *p value <0.05.

[2] Other arrangement includes: hospital-led; jointly led by physicians and hospital; coalition-led; state, region and county-led; or other.

Table 4: Motivations for Dental Inclusion or Exclusion within Largest Overall Contract and/or Medicaid Contract

Inclusion Motivations for ACOs Currently Including or Planning to Include Dental (N=49)	
Generate cost savings	69%
High need among patients	67%
Dental a core primary care service	61%
Impact ACO performance measures	51%
Reliable payment source	22%
Exclusion Motivations for ACOs Not Planning to Include Dental (N=168)	
Lack of integrated HIT	55%
Dental not a core primary care service	52%
Limited impact on ACO performance measures	51%
Limited impact on cost savings	42%
Difficultly recruiting dental providers	27%
Lack of dental insurance among patients	26%
Low need among patients	17%
Other	14%

Note: ACOs were asked about their motivations to include or exclude dental services in their largest overall ACO and Medicaid contract in the Wave 3 and Wave 1 follow-up survey. Our analyses only include these respondents, as Wave 2 survey respondents were not asked these items. The unit of analysis in this table is an ACO payer contract. A given ACO may contain multiple contracts that include or plan to include dental services and therefore may be counted multiple times in a category.

Table 5: Dental Services Provided, Patient Populations Served, and Delivery Models among ACOs that Include or Plan to Include Dental Services in their Largest Overall Contract and/or Medicaid Contract

Services Provided	
Diagnostic and preventive services	74%
Basic restorative services	68%
Emergency/urgent care	64%
Major restorative services	34%
Other	18%
Orthodontics	8%
Patient Populations Served	
Non-elderly adults (19-64 yrs)	70%
Elderly adults (65+ yrs)	70%
Children (0-18 yrs)	65%
Service delivery models	
Facilitated referral	68%
Co-located services	36%
On-site dental employees	36%
Contracts with several small dental providers	29%
Contracts with few large providers	22%

Note: ACOs were asked about the dental services they provide and the dental populations they serve in their largest overall contract and Medicaid contract in the Wave 3 and Wave 1 follow-up survey. Our analysis only includes these respondents, as Wave 2 survey respondents were not asked these items. The unit of analysis in this table is an ACO payer contract. A given ACO may contain multiple contracts that include or plan to include dental services and therefore may be counted multiple times in a category.

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211 E. Chicago Avenue
Chicago, Illinois 60611
312.440.2928
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