

eAppendix Table. Comparisons of 267 Surveyed ACOs That Answered the Question “Are You Aware of the Choosing Wisely Program?”

	ACOs unaware of CW, or not taking steps 183 (%)	ACOs taking steps 84 (%)	X ₂ univariate logistic regression (p value)
<u>Characteristics of ACO</u>			
# CMS beneficiaries in performance year 1 (mean) ¹	13,473	17,753	0.13
# FTEs PC-clinicians participating in largest contract (mean)	169	189	0.51
# FTEs specialty clinicians participating in largest contract (mean)	266	311	0.45
# hospitals in largest contract (mean)	2.5	4.0	< 0.01*
Includes one or more public hospitals	39 (21.3)	17 (20.0)	0.84
Includes one or more academic centers	39 (21.3)	22 (26.0)	0.28
ACO considers itself an integrated delivery system ²	82 (45.6)	52 (63.4)	< 0.01*
<u>Previous collaboration and participation in reforms</u>			
Prior to ACO, organizations collaborated closely ³	47 (26.1)	30 (36.6)	0.09
All organizations in the ACO have pursued a risk-based payment contract together in the past ⁴	22 (12.1)	28 (33.3)	<< 0.01*
Previous participation in payment reform efforts ⁵	175 (95.6)	81 (96.4)	0.76
# efforts participated in (mean, out of 8)	4.2	4.9	< 0.01*
Bundled or episode based- payments only	39 (22.3)	25 (30.9)	0.47
<u>Role of physicians and patients</u>			
ACO is led by physicians (with or without hospital)	153 (83.6)	72 (85.7)	0.66
ACO involves practicing physicians extensively in the board (% of practicing physicians, mean)	64.9	60.8	0.27
decision making on the future of the ACO ⁶	104 (58.1)	51 (60.7)	0.69
management of patient care ⁷	47 (26.1)	27 (32.9)	0.26
ACO board includes patients (-representatives) ⁸	130 (73.0)	48 (63.2)	0.12
<u>Financial contracts</u>			

Commercial

Has commercial ACO contract ⁹	94 (51.4)	67 (79.8)	<< 0.01*
# commercial contracts (median)	1.5	2	0.12
Length of contract (years, mean)	2.9	3.1	0.36
For largest commercial ACO contract:			
# ACOs with >20,000 attributed patients ⁹	23 (26.1)	25 (37.9)	0.12
Risk arrangement in the 1 st year ¹⁰ :			
Shared savings with bonus only	71 (77.2)	40 (60.6)	0.03*
Shared savings with bonus and down-side risk	7 (7.6)	13 (19.7)	0.02*
Shared savings with global budget under FFS	3 (3.3)	6 (9.1)	0.12
Capitation (partial for some services, or full)	5 (5.4)	3 (4.5)	0.81
Other	6 (6.5)	4 (6.1)	0.92
Shared savings are contingent upon quality metrics ¹¹	77 (95.1)	51 (86.4)	0.02*

Medicare

Has CMS confirmed Medicare contract	147 (80.3)	57 (67.9)	0.03*
Shared Savings Program risk sharing, 1-sided ¹²	136 (99.3)	49 (98.0)	0.48

Medicaid

Has Medicaid ACO arrangement	37 (20.2)	24 (28.6)	0.14
Length of contract (years, mean)	3,1	3,9	0.10
Risk arrangement in the 1 st year ¹³ :			
Shared savings with bonus only	22 (62.9)	3 (15.8)	<< 0.01*
Shared savings with bonus and down-side risk	4 (11.4)	2 (10.5)	0.75
Shared savings with global budget under FFS	1 (2.9)	4 (21.1)	0.05
Capitation (partial for some services, or full)	5 (14.3)	7 (36.8)	0.14
Other	3 (8.6)	3 (15.8)	0.58
Shared savings are contingent upon quality metrics ¹¹	22 (81.5)	6 (66.7)	0.17
ACO has > 25% patients uninsured/ Medicaid beneficiaries ¹⁴	38 (20.9)	5 (6.0)	<< 0.01*

General

Mean % of funds (savings, bonuses, payments) that is ¹⁵			
Retained by the ACO	27.6	25.1	0.53
Allocated across participating members	25.3	36.2	0.04*
<u># ACOs allocating across members ¹⁶:</u>			
To all member organizations	43 (38.7)	26 (45.6)	0.45
Must meet quality benchmarks	20 (18.0)	10 (17.5)	0.90
Must meet cost savings targets	12 (10.8)	6 (10.5)	0.92
Paid directly to physicians	35.8	35.3	0.92
<u># ACOs allocating to physicians ¹⁷:</u>			
To all physicians	54 (48.6)	21 (35.6)	0.12
Must meet quality benchmarks	21 (18.9)	12 (20.3)	0.78
Must meet cost savings targets	13 (11.7)	7 (11.9)	0.95
Physicians (primary care and/or specialists) are compensated based on ¹⁸			
Clinical quality measures	143 (79.4)	76 (91.6)	0.01*
Patient satisfaction (percentage)	116 (64.4)	56 (67.5)	0.63
Cost reduction	105 (58.3)	49 (59.0)	0.91
Productivity measures	79 (43.9)	41 (49.4)	0.40
Peer review of physician performance	33 (18.3)	13 (15.6)	0.59
Potential bonus and/or risk is sufficient to influence ACO's behavior to achieve cost/quality goals ¹⁹	136 (70.5)	63 (75.0)	0.98
<u>Quality behavior</u>			
ACO selects providers on quality and cost ²⁰	30 (16.9)	21 (25.6)	0.11
ACO includes these stakeholders in the design of quality improvement initiatives:			
Front-line care providers ²¹	162 (91.5)	69 (85.2)	0.13
Patients and their family members ²²	33 (19.2)	16 (19.8)	0.91
Approaches used to manage individual physician performance ²³			
Quality measures shared among peers	130 (71.4)	63 (75.9)	0.44
Cost measures are shared among peers	79 (43.4)	32 (38.6)	0.02*
One-on-one review and feedback	113 (62.1)	52 (62.7)	0.93
Individual financial incentives	66 (36.3)	31 (37.3)	0.86

Non-financial awards or recognition	40 (22.0)	18 (21.7)	0.95
None	20 (11.0)	7 (8.4)	0.52

List of abbreviations: #, number of; ACO, accountable care organization; CMS, Centers for Medicare and Medicaid services; FFS, Fee-for-Service; PC-clinicians, Primary Care clinicians including physicians, physician assistants and nurse practitioners

Explanatory Legend:

¹ quality scores and shared savings only for the 158 ACOs linked to CMS data (not aware or not taking steps: 112; aware and taking steps: 46)

² percentages calculated over the number of ACOs that have answered this question (not aware or not taking steps: 180; aware and taking steps: 82)

³ percentages calculated over the number of ACOs that have answered this question (not aware or not taking steps: 180; aware and taking steps: 82)

⁴ percentages calculated over the number of ACOs that have answered this question (not aware or not taking steps: 182; aware and taking steps: 84)

⁵ previous payment reforms including: 1) bundled or episode based payments, 2) patient centered medical homes, 3) pay for performance programs, 4) publicly reported quality measures, 5) Medicare advantage, 6) capitated commercial contracts, 7) other risk-bearing contract, or 8) other payment reform effort

⁶ percentages calculated over the number of ACOs that have answered this question (not aware or not taking steps: 179; aware and taking steps: 84)

⁷ management may consist of comprehensive pre-visit planning, medication management and review, reminders for preventive care and specific tests. Percentages calculated over the number of ACOs that have answered this question (not aware or not taking steps: 180; aware and taking steps: 82)

⁸ percentages calculated over the number of ACOs that have answered this question (not aware or not taking steps: 178; aware and taking steps: 76)

⁹ information on commercial contracts (number of contracts, length of contracts, number of attributed patients) available only for 88/94 ACOs with commercial contracts that were unaware of Choosing Wisely or not taking steps, and 66/67 ACOs with commercial contracts that took steps towards Choosing Wisely

¹⁰ percentages calculated over number of ACOs with commercial contract who gave information about their risk arrangement (not aware or not taking steps: 92/94; aware and taking steps: 66/67)

¹¹ percentages calculated over those ACOs who reported shared savings

¹² percentages calculated over number of ACOs with CMS confirmed Medicare contract who gave information about their risk sharing track: one-, or two-sided (not aware or not taking steps: 137/147; aware and taking steps: 50/57)

¹³ percentages calculated over number of ACOs with Medicaid contract who gave information about their risk arrangement (not aware or not taking steps: 35/37; aware and taking steps: 19/24)

¹⁴ percentages calculated over number of ACOs that have answered this question (not aware or not taking steps: 182; aware and taking steps: 84)

¹⁵ Mean percentage based on ACOs that have determined how funds will be shared and provided this information (not aware or not taking steps: 112 (61.2%); aware and taking steps: 59 (70.2%))

¹⁶ In the group that is not aware or not taking steps, one ACO did not specify how it allocated funds across its members. In the group taking steps towards Choosing Wisely two ACOs did not specify how it allocated funds across its members. Therefore percentages in this group are calculated over 111 ACOs not aware or not taking steps (instead of 112 ACOs as would follow from footnote 18) and 57 ACOs taking steps (instead of 59 ACOs as would follow from footnote 18).

¹⁷ In the group that is not aware or not taking steps, one ACO did not specify how it allocated funds to physicians. Therefore percentages in this group are calculated over 111 ACOs (instead of 112 ACOs as would follow from footnote 18), and 59 ACOs taking steps.

¹⁸ percentages calculated of number of ACOs that have answered this question (not aware or not taking steps: 180; aware and taking steps: 83)

¹⁹ percentages calculated of number of ACOs that have answered this question (not aware or not taking steps: 181; aware and taking steps: 84)

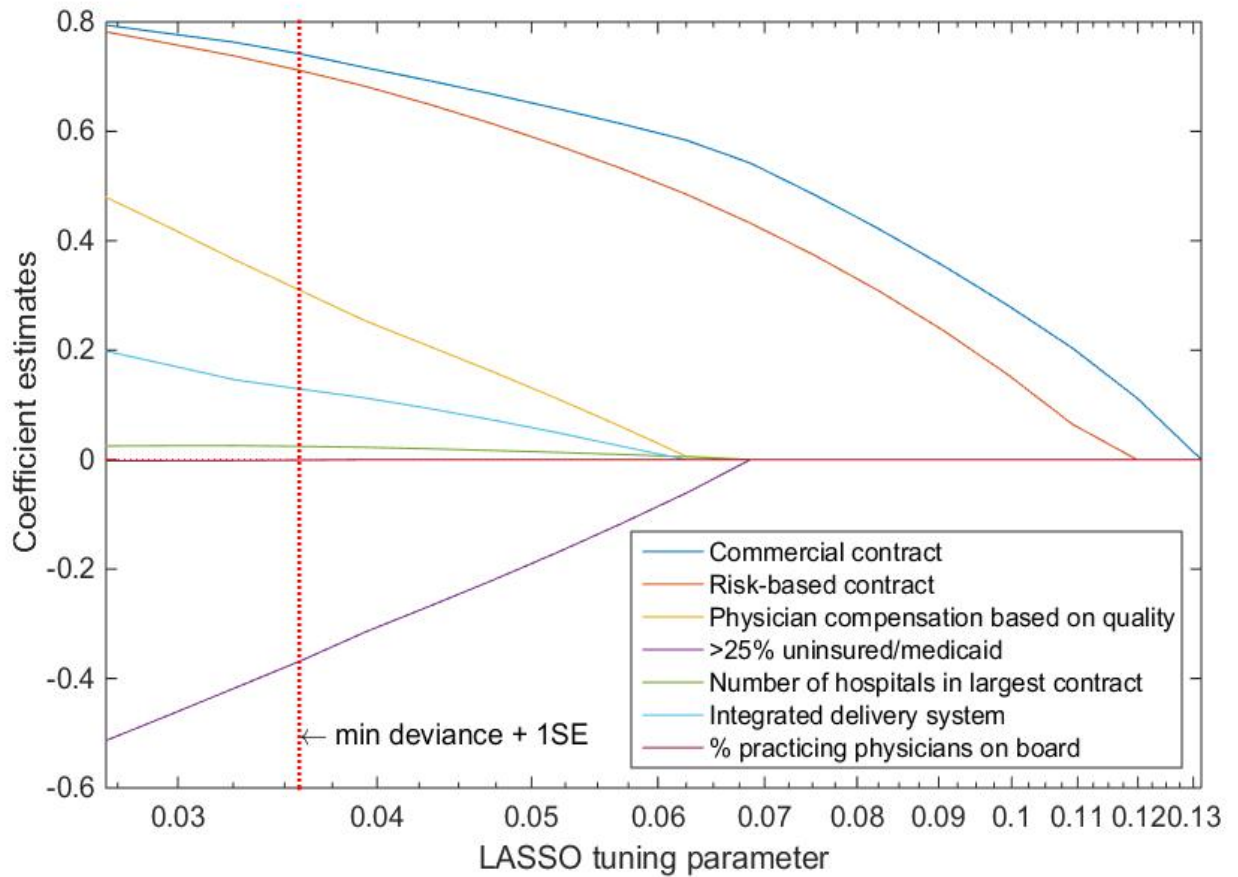
²⁰ percentages calculated of number of ACOs that have answered this question (not aware or not taking steps: 177; aware and taking steps: 82)

²¹ percentages calculated of number of ACOs that have answered this question (not aware or not taking steps: 177; aware and taking steps: 81)

²² percentages calculated of number of ACOs that have answered this question (not aware or not taking steps: 172; aware and taking steps: 81)

²³ percentages calculated of number of ACOs that have answered this question (not aware or not taking steps: 182; aware and taking steps: 83)

eAppendix Figure 1. The effect of the LASSO tuning parameter on the coefficient estimates of the most significant predictors for an ACO to actively reduce low-value care in the LASSO model



eAppendix Figure 2. ROC curves with minimum misclassification rates for the stepwise and LASSO logistic regression models

