RESEARCH ARTICLE

Development and application of a survey instrument to measure collaboration among health care and social services organizations

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Abstract

Objective: To measure strategies of interorganizational collaboration among health care and social service organizations that serve older adults.

Study Setting: Twenty Hospital Service Areas (HSAs) in the United States.

Study Design: We developed and validated a novel scale to characterize interorganizational collaboration, and then tested its application by assessing whether the scale differentiated between HSAs with high vs low performance on potentially avoidable health care use and spending for Medicare beneficiaries.

Data Collection: Health care and social service organizations (N = 173 total) in each HSA completed a 12-item collaboration scale, three questions about collaboration behaviors, and a detailed survey documenting collaborative network ties.

Principal Findings: We identified two distinguishable subscales of interorganizational collaboration: (a) Aligning Strategy and (b) Coordinating Current Work. Each subscale demonstrated convergent validity with the organization's position in the collaborative network, and with collaboration behaviors. The full scale and Coordinating Current Work subscale did not differentiate high- vs low-performing HSAs, but the Aligning Strategy subscale was significantly higher in high-performing HSAs than in low-performing HSAs (*P* = .01).

Conclusions: Cross-sector collaboration—and particularly Aligning Strategy—is associated with health care use and spending for older adults. This new survey measure could be used to track the impact of interventions to foster interorganizational collaboration.

KEYWORDS

cross-sector collaboration, older adults, social determinants of health, survey instrument

1 | INTRODUCTION

Health care leaders and policy makers have called for greater collaboration among providers of health care and social services to address patients' social determinants of health.¹⁻⁴ Accumulated evidence suggests that social service interventions can improve health outcomes and reduce health care costs for multiple groups, including older adults.^{5,6} In line with this growing evidence base, a variety of initiatives at national, state, and local levels are experimenting with different models to connect health care with community-based organizations providing social services.^{1,7-10} Recent investments in such cross-sector collaboration have also been announced by health care delivery systems across the United States.¹¹⁻¹³

Although cross-sector partnerships to address the interrelated health and social needs of older adults are promising, effective collaboration is fraught with challenges^{14,15} and multisector initiatives often fail to affect population health.¹⁶ A long history of cross-sector health partnerships has consistently linked several partnership features—including having a clear mission, strong leadership, and active member involvement—with process measures of success, such as partner satisfaction and attainment of partnership goals.¹⁷⁻²¹ However, systematic reviews have identified a dearth of evidence linking multisector partnership strategies to health outcomes.^{17-19,22}

One factor that may contribute to limitations in current evidence is the absence of instruments that measure qualities of relationships between organizations in the health care and social service sectors. Many validated survey instruments are available to help researchers measure relationships between individual people collaborating on health care teams; those instruments often assess multiple dimensions such as communication, coordination, and respect.²³ A number of such instruments measuring collaboration between individuals have been psychometrically validated and related to outcomes.²⁴⁻²⁷ Analogous measures to characterize relationships between organizations are not available.

Accordingly, we developed and validated a new scale to measure interorganizational collaboration among organizations providing health care and social services to older adults. Our validation procedure involved three components: (a) examining the association of the scale with more difficult-to-collect organizational network measures, (b) examining the association of the scale with frequencybased measures of collaboration behavior, and (c) testing whether mean scores on the scale differentiated 20 communities with high vs low levels of potentially avoidable health care use and spending for Medicare beneficiaries. Forming and maintaining collaborative relationships takes substantial time and resources.²⁸ Improved ability to measure cross-sector collaboration could help evaluate initiatives designed to foster it, and guide investments toward the types of collaboration most likely to achieve results.

2 | METHODS

2.1 | Scale development

We developed a 12-item scale to measure strategies for interorganizational collaboration among health care and social services organizations for older adults. Following established methods for survey development,^{29,30} we began by identifying relevant conceptual domains and then proceeded to draft new questions and adapt existing questions, enlist experts to review, conduct cognitive interviews, and refine questions accordingly. To identify relevant conceptual domains, we drew on prior, in-depth qualitative research that identified important features of collaborative interorganizational relationships among health care and social service organizations.³¹ We drafted questions to measure these relationship features and compared the resulting items with existing scales of interpersonal coordination. We adapted several items from the relational coordination

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scale,³² an established measure of interpersonal work relationships, to enhance our coverage of the concepts of shared goals and shared knowledge at the interorganizational level. Response options for all questions consisted of a 5-point Likert scale with choices ranging from 1 = strongly disagree to 5 = strongly agree. To prompt respondents to consider interorganizational relationships in their communities as a whole, the scale was prefaced with the statement "Overall, the organizations that provide health care, social services and other key supports for older adults in our community..."

We sought feedback on the draft survey instrument from five experts outside our research team. We piloted the survey instrument in cognitive interviews³³ with eight health care and social service professionals based in a single community that was not one of our research sites. The cognitive interviews and feedback helped identify items that were ambiguous or poorly worded, in addition to important components of interorganizational relationships that were insufficiently addressed from the respondents' perspectives. We revised the survey accordingly.

2.2 | Testing the scale

2.2.1 | Study design and sample

For validation and testing, we administered the interorganizational collaboration scale to 294 health care and social service organizations in 20 communities across the United States. To permit testing of the association between collaboration and potentially avoidable health care use and spending, we selected communities with uniformly high (n = 12) or low (n = 8) performance across three outcomes that we expected would be sensitive to cross-sector partnerships: (a) hospitalizations for ambulatory care sensitive conditions; (b) riskstandardized hospital readmission rates; and (c) Medicare spending per beneficiary. Communities were demarcated by Hospital Service Areas (HSAs). HSAs qualified as higher performing if they performed in the top quartile on at least two of the three indicator outcomes. HSAs qualified as lower performing if they performed in the bottom quartile on at least two of the three indicator outcomes. Our sampling frame focused on HSAs where at least 75 percent of the population was living in areas defined by the Census as urbanized or urban clusters, as we anticipated that collaboration might involve different dynamics in sparsely populated areas with few service providers. We excluded HSAs in the extreme quartiles of acute care hospital bed density, as supply can influence utilization.³⁴ We also excluded the largest HSAs (more than three hospitals) to ensure that we could reasonably identify most of the relevant health care and social services organizations in each service area. We stratified eligible communities according to household income and selected a purposeful random sample of 20 HSAs: 12 higher performing HSAs and eight lower performing HSAs. Part of the sample of HSAs was involved in a qualitative positive deviance study previously reported.³¹ As is common for that methodology,³⁵ we included more HSAs from the higher performing group. The higher performing group was evenly split between above-median and below-median HSR Health Services Research

income, with six HSAs in each category. The lower performing group included three below-median-income and five above-median-income HSAs. In terms of racial/ethnic composition, both performance groups were somewhat less diverse than the nation as a whole. In the higher performing group, 3 of 12 HSAs had above-median proportions of residents with nonwhite or Hispanic backgrounds, while in the lower performing group, 1 of 8 HSAs had above-median proportions of residents with nonwhite or Hispanic backgrounds. The mean proportion of population living in urbanized areas was similar across performance groups (89 percent in higher performing HSAs and 93 percent in lower performing HSAs).

2.2.2 | Participant identification

We identified potential study participants through a two-phase process involving systematic Web-based research to identify common health care and social service organizations that serve older adults in most communities (eg, hospitals, senior centers, United Way, Area Agencies on Aging, and food pantries) followed by snowball sampling to identify additional organizations. Individuals with the highest seniority at each organization (eg, executive director) were invited to complete the survey on behalf of their organizations. For hospitals, we targeted directors of case management, as they typically oversee links with community organizations that help patients postdischarge.

2.2.3 | Organizational network measures

In addition to the 12-item interorganizational collaboration scale, our survey also included an organizational network elicitation section that collected information about each organization's collaborative ties with other organizations in their HSAs. Respondents were presented a matrix listing all health care and social service organizations that we had identified as serving older adults in their HSAs (mean 14.7 organizations per HSA) and were asked to indicate whether and how their organizations had collaborated with each potential counterpart in the prior 12 months. Respondents could identify up to six types of collaboration with each counterpart: client referrals, sharing information about clients, cosponsoring activities (such as programs or advocacy), financial relationships, community needs assessments, and other. We aggregated the six types of collaborative ties to create a multiplex network (where 6 represented all collaborative ties present and 0 represented no ties present) in order to capture the multiple, simultaneous relations that exist between organizations in the HSA network. We used network analysis software (UCINET version 6.636) to calculate two measures of centrality for each organization within the multiplex network: (a) in-degree centrality (incoming ties reported by other organizations, often used in social network analysis as a measure of popularity) and (b) out-degree centrality (ties sent, representing tendency toward outreach). To capture tie strength, or the intensity of the interorganizational relationships, centrality measures were weighted by the number of collaborative ties present between an organization and its counterparts. Additional properties of the organizational networks are reported and analyzed elsewhere.³⁶

2.2.4 | Frequency measures of collaboration behavior

Finally, the survey collected data on the frequencies of three specific collaboration behaviors (coalition meetings, communication about clients, and reviewing health care utilization data) with options ranging from weekly or more to less than once per year. These collaboration behaviors were selected on the basis of prior qualitative research.³¹ For analysis, responses were dichotomized to "monthly or more" or "less than monthly."

2.2.5 | Survey administration

The survey instrument—including the interorganizational collaboration scale, organizational network elicitation, and frequency measures of organizational coordination—was administered as a Web-based survey from June to October 2017. The full survey instrument is provided as Appendix S1. Nonrespondents received follow-up by email, telephone, and postal mail and were offered the opportunity to complete the survey on paper.

2.2.6 | Validation analysis

Reliability

We used standard descriptive statistics to characterize survey participants, response distributions, and mean scores for each item on the interorganizational collaboration scale (with numeric values assigned to responses so that 1 = strongly disagree and 5 = strongly agree). We used exploratory factor analysis, with varimax rotation, to examine common factors across the 12 items measuring interorganizational collaboration. Two factors had eigenvalues >1, with a drop-off after the second factor; therefore, we determined that a two-factor solution fit the data. All 12 items loaded onto the two factors, using 0.4 as the threshold for factor loading. Internal consistency of the resulting scales was assessed by calculating Cronbach's α . Negatively worded items were reverse-coded to calculate mean summary scores for each scale and subscales, so that higher scores consistently indicated a more positive direction.

Convergent validity

Anticipating that organizations positioned more centrally in their interorganizational networks should report higher levels of interorganizational collaboration, we assessed convergent validity of the interorganizational collaboration scales by using linear regression models to test associations between an organization's score on the collaboration scale and its centrality in the HSA's multiplex organizational network. We used logistic regression models to test associations between scores on the collaboration scales and whether the organization employed three specific collaboration behaviors monthly or more. All models were adjusted for organization type (health care vs social services), and standard errors were clustered by HSA.

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TABLE 1	Respondent rates by organization types and
performance	e

	High-perform- ing (n = 112)		Low-per- forming (n = 61)		
Organizations	N	%	N	%	Overall
Health care subtotal	32	29.0	19	31.1	51
Department of Health	7	6.3	3	4.9	10
Hospital	11	9.8	7	11.5	18
Outpatient pro- viders and other	9	8.0	3	4.9	12
Residential or Home Health Care	5	4.5	6	9.8	11
Social services subtotal	80	71.4	42	68.9	122
AAA	11	9.8	10	16.4	21
Adult protective services	2	1.8	2	3.3	4
Elder services (multiple services)	14	12.5	9	14.8	23
Housing support	7	6.3	2	3.3	9
Legal services	3	2.7	3	4.9	6
Nutrition support	5	4.5	2	3.3	7
Recreation	20	17.9	2	3.3	22
Social services (multiple services)	16	14.3	11	18.0	27
Transportation	2	1.8	1	1.6	3
Total	112		61		173

Abbreviation: AAA, Area Agency on Aging.

Discriminate validity

To examine associations between the interorganizational collaboration scale and HSA performance on potentially avoidable health care utilization and spending, we used linear regression models to compare mean scores on the interorganizational collaboration scale and the subscales (as well as individual items) in high- vs low-performing HSAs. To account for potential differences arising from types of organizations represented in different HSAs, all models were adjusted for type of organization (health care or social services). All models clustered standard errors by HSA. Using logistic regression models, we tested whether regular employment of each of the three specific collaboration behaviors measured on the survey was associated with HSA performance.

3 | RESULTS

A total of 173/294 respondents completed the survey (59 percent response rate) (Table 1). Most participants (151) completed HSR Health Services Research

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the survey online, with the remaining participants completing it on paper or via phone. Response rates across communities ranged from 40 to 88 percent. The average response rate in high-performing HSAs was higher (63 percent) than in low-performing HSAs (52 percent).

3.1 | Factor analysis

Factor analysis of the 12-item scale produced a 2-factor solution, with loading values ranging from 0.46 to 0.76 (Table 2). The two factors represented distinct concepts of (a) Aligning Strategy, which includes questions on working together to identify and address community needs, and (b) Coordinating Current Work, which includes items on sharing information, keeping one another up to date, and trust. Items that loaded (loading values > 0.4) on both factors were assigned to the factor on which they had the higher score. Seven items loaded on both factors, suggesting areas where the factors are related.

3.2 | Reliability

The Cronbach α of the 12-item interorganizational collaboration scale was 0.92, indicating a very high level of internal consistency reliability. The Cronbach α scores for the 6-item subscales were also high, with values of 0.88 and 0.87, exceeding the commonly recommended value of 0.7.³⁷

3.3 | Convergent validity

Participants' scores on the interorganizational collaboration scale (and both subscales) were significantly associated with the centrality of their organizations in the HSA's collaboration network (Table 3). In-degree centrality depends entirely on incoming collaborative ties reported by other organizations in a participant's HSA—as opposed to ties reported by the organization itself. For this reason, the significant association of in-degree centrality with the overall scale (P = .007), the Aligning Strategy subscale (P = .031), and the Coordinating Current Work subscale (P < .001) provides a measure of external validity. The significant association of the interorganizational collaboration scales with out-degree centrality, which is based on ties reported by the organization itself, demonstrates that the interorganizational scales are also consistent with this alternative—and more difficult-to-assess—self-reported network measure.

Scores on the interorganizational collaboration scale (and both subscales) were also significantly and positively associated with the three frequency-based measures of coordination measured on the survey (Table 3).

3.4 | Differences in interorganizational collaboration between high- and low-performing HSAs

Mean scores on the Aligning Strategy subscale were significantly higher in high-performing HSAs relative to low-performing HSAs 1250

Question	Factor 1 Aligning strategy	Factor 2 Coordinating current work
1. Work together to identify unmet needs in the community	0.71	0.52
2. Work together to decide how to fill gaps in services	0.73	0.51
3. Usually make their own plans without consulting one another	-0.64	
4. Act toward a common goal	0.68	0.47
5. Are often in competition with one another	-0.57	
6. Get a lot accomplished by working together	0.47	0.57
7. Have trusting relationships between organizations	0.53	0.56
8. Have access to resources (eg, expertise, facilities, funding) that support collabo- ration between organizations		0.69
9. Keep each other up to date about the issues we work on		0.76
10. Communicate about individual clients/patients that we serve together, when needed		0.46
11. Share information that helps the system of care work better	0.54	0.64
12. Have trouble communicating	-0.51	-0.51
Cronbach's α	0.88	0.87

TABLE 2 Factor analysis loading for questionnaire items

Note: Shading indicates each item's highest factor loading.

(*P* = .01), indicating that respondents in high-performing HSAs perceived greater collaboration in this domain relative to respondents in low-performing HSAs. Examining individual scale items, five of the six items constituting the Aligning Strategy subscale had significantly higher mean scores in high-performing HSAs relative to low-performing HSAs (Table 4). Although mean scores on the Coordinating Current Work subscale and the interorganizational collaboration scale as a whole were higher in high-performing HSAs than in low-performing HSAs, these differences did not attain statistical significance.

One of the specific collaboration behaviors assessed on our survey, and used as a measure of convergent validity, was more prevalent in high-performing HSAs relative to low-performing HSAs (Table 4). Organizations in high-performing HSAs were significantly more likely to participate in coalition meetings monthly or more frequently (70 percent vs 43 percent, P = .001).

4 | DISCUSSION

Our results make two main contributions to understanding interorganizational collaboration among health care and social services organizations at the community level. First, our study validated a brief, easy-to-administer scale to measure qualities of interorganizational collaboration among health care and social services organizations. While instruments that measure working relationships among individuals in health care settings are well developed,²³ there is a paucity of scales designed to measure relationships between organizations. Our 12-item interorganizational collaboration scale was administered alongside a much more resource-intensive survey collecting data on collaborative network ties in our study communities. As reported elsewhere, collaborative networks in high-performing and low-performing communities displayed distinctive network properties.³⁶ Documenting and analyzing network ties is a useful method to generate a deep understanding of interorganizational collaboration and is the approach taken by the PARTNER Tool, a valuable instrument which asks all organizations to answer a series of questions about each of the other organizations in a collaborative network.³⁸ This approach is well suited to evaluation of formal, funded collaboratives, but requires users to prospectively inventory all relevant organizations and obtain responses to a complex questionnaire. The interorganizational collaboration scale presented here offers a flexible alternative that could be used by researchers and practitioners seeking to measure interorganizational collaboration outside the context of a formalized collaborative. While our study did not seek to measure change in interorganizational collaboration over time, the instrument could be useful to researchers or practitioners wishing

TABLE 3 Convergent validity: association of collaboration scores with network position and use of collaboration behaviors^a

Organizational network	Factor 1 Aligning strategy ^a		Factor 2 Coordinating current w	Overall scale		
measures	β ^c	P-value	β	P-value	β	P-value
Out-degree centrality	0.05	.031	0.11	.000	0.09	.000
In-degree centrality	0.04	.036	0.05	.009	0.05	.007
Frequency measures of col- laboration behavior	OR ^c	P-value	OR	P-value	OR	P-value
1. Participation in coalition meetings (monthly or more)	1.96	.000	2.47	.000	2.42	.000
2. Communication about needs of individual clients (monthly or more)	1.91	.004	3.22	.002	2.71	.002
3. Reviews data on health care utilization together with other organizations that serve older adults in our community (monthly or more)	1.96	.014	1.74	.038	2.02	.018

^aFactor 1, Aligning Strategy, calculated as mean of survey questions #1, 2, 3, 4, 5, and 12.

^bFactor 2, Coordinating Current Work, calculated as mean of survey questions #6, 7, 8, 9, 10, and 11.

 $^{c}\beta$ coefficients (or Odds Ratios) for collaboration scores in regression models predicting each measure of convergent validity, adjusting for organization type (health care vs social service), and clustering SE within HSAs.

to evaluate initiatives to improve interorganizational collaboration, for example, through the Centers for Medicare and Medicaid Services Accountable Health Communities initiative¹ and related state initiatives.^{8,9,39}

Second, our findings document a significant association between interorganizational collaboration and community-level performance on avoidable health care use and spending for older adults and identify one aspect of interorganizational collaboration that is especially important: the Aligning Strategy subscale. Aligning Strategy represents the extent to which organizations in the community work together to identify unmet needs, fill gaps in services, make plans, and act toward common goals. This type of collaboration mobilizes the skills and assets of different organizations to complement one another, potentially increasing the efficiency of the system of care. Regular coalition meetings, which were more common in high-performing communities, could provide the time and space to reflect on unmet needs and align plans. We identified a second domain of interorganizational collaboration-Coordinating Current Work-which represents the extent to which organizations share information, communicate about individual clients, trust one another, and feel that they get a lot accomplished by working together. Coordinating Current Work may also enhance health outcomes, although in our study collaboration on this dimension did not distinguish high- from low-performing HSAs. It is also possible that Coordinating Current Work improves care for specific, shared patients/clients, while not producing impacts discernable at the population level.

One interpretation of our results is that interorganizational collaboration exists on a developmental continuum, with the Coordinating Current Work subscale representing a stage in the development of deeper and more strategic forms of collaboration represented by the Aligning Strategy subscale. As collaboration deepens, there could be greater potential to influence populationlevel health outcomes such as avoidable utilization and costs. This view aligns with interorganizational network theory suggesting that relationships build gradually, as partners accumulate knowledge about one another's competence and reliability and gain confidence to commit further.40,41 Alternatively, Coordinating Current Work and Aligning Strategy could represent divergent strategies for interorganizational collaboration that develop independently. This would be analogous to prior theory from organizational sociology that differentiates interorganizational relationships on the basis of whether linkages involve transfer of resources (eg, referrals, information, funding) or interpenetration of organizational boundaries (eg, common membership in a coalition, joint programs) without supposing a developmental pathway between these modes of interorganizational collaboration.⁴² Our cross-sectional research design does not permit us to assess how relationships develop over time, but this would be a fruitful area for further study. In such longitudinal research, we would recommend retaining items that measure Coordinating Current Work as well as Aligning Strategy.

Our results should be interpreted in light of study limitations. First, our survey was completed by a single respondent, who may not be aware of all collaboration undertaken by the organization. Some of our validation measures (out-degree network centrality, collaboration behaviors) came from the same respondent and are therefore subject to common methods variance, but other measures (in-degree network centrality, HSA performance) came from external sources. Second, it is likely that health care

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TABLE 4 Items of scale with means and SDs by performance

	High-performing (n = 112)		Low-performing (n = 61)		Difference high	
	Mean ^a	SD	Mean ^a	SD	vs low	P-value ^b
What organizations do together						
1. Work together to identify unmet needs in the community	3.97	0.82	3.56	1.09	0.42	.007
2. Work together to decide how to fill gaps in services	3.77	0.87	3.39	1.11	0.38	.064
3. Usually make their own plans without consulting one another (R)	2.96	0.89	3.31	1.04	-0.36	.022
4. Act toward a common goal	3.84	0.71	3.59	1.07	0.24	.074
5. Are often in competition with one another (R)	2.89	0.92	3.23	1.11	-0.34	.048
6. Get a lot accomplished by working together	3.85	0.85	3.70	1.01	0.14	.380
7. Have trusting relationships between organizations	3.77	0.73	3.75	0.89	0.01	.934
8. Have access to resources (eg, expertise, facili- ties, funding) that support collaboration between organizations	3.51	0.90	3.43	1.07	0.08	.688
9. Keep each other up to date about the issues we work on	3.52	0.84	3.20	1.05	0.32	.103
10. Communicate about individual clients/patients that we serve together, when needed	3.71	0.85	3.85	0.83	-0.14	.299
11. Share information that helps the system of care work better	3.59	0.78	3.46	1.04	0.13	.462
12. Have trouble communicating (R)	2.69	0.85	2.90	1.15	-0.21	.248
Interorganizational collaboration scale (mean of items)						
Factor 1—Aligning Strategy (6 items)	3.51	0.62	3.18	0.92	0.33	.014
Factor 2—Coordinating Current Work (6 items)	3.66	0.63	3.57	0.79	0.09	.515
Full scale (12 items)	3.58	0.58	3.37	0.82	0.021	.107
Collaboration behaviors—performed monthly or more	%		%			<i>P</i> -value ^c
1. Participation in coalition meetings	70%		43%		27%	.001
2. Communication about needs of individual clients	75%		70%		5%	.461
3. Reviews data on health care utilization together with other organizations that serve older adults in our community	31%		23%		8%	.065

^aResponse options consisted of a 5-point Likert scale with response options ranging from 1 = strongly disagree to 5 = strongly agree. Negatively worded items (R) were reverse-coded in the calculation of composite scores.

^bFor difference between high- and low-performing HSAs, calculated as significance of HSA performance (high vs low) in linear regression of item score on HSA performance, adjusting for organization type (health care vs social service), and clustering standard errors (SE) within HSAs. ^cFor difference between high- and low-performing HSAs, calculated as significance of HSA performance in logistic regression model of odds of using each collaboration behavior monthly or more on HSA performance, adjusting for organization type, and clustering SE within HSAs.

use and spending for Medicare beneficiaries in our high- and lowperforming HSAs was influenced by a variety of factors beyond collaboration among health care and social services organizations. Still, strategies of collaboration did vary significantly across performance groups, suggesting that these strategies are implicated in performance. Additional research—ideally, following the development of collaborative strategies and changes in outcomes over time—will be needed to further understand relationships between community features, interorganizational collaboration, and outcomes. Third, our methods did not measure the capacities of individual health care and social services organizations; the effectiveness of the collaboration strategies we identified may vary based on the capacities of individual organizations. Fourth, it is possible that there are additional strategies for collaboration, not measured on our survey, that differentiate high- and low-performing HSAs, although our survey did capture key domains of collaboration identified from extensive qualitative interview data.³¹ Finally, our sample of 20 HSAs was relatively small and may not generalize to all contexts, although our sample was intentionally diverse with respect to geography and income.

In conclusion, we have developed and validated a simple-to-use tool for measuring interorganizational collaboration among health care and social services organizations at the community level, and identified two distinct constructs represented by subscales: Aligning Strategy and Coordinating Current Work. Further, we documented significantly higher levels of collaboration on Aligning Strategy in HSAs with lower levels of potentially avoidable health care use and spending for Medicare beneficiaries. As health care payers, policy makers, and providers seek to strengthen systems of care for older adults, supporting the strategic planning and goal setting activities represented by the Aligning Strategy subscale could help maximize impact. Strengthening interorganizational collaboration for Aligning Strategy will take time and involve complex interorganizational dynamics. The many ongoing initiatives designed to impact this area will provide valuable experience over the next several years. The new, brief instrument that we developed and validated to measure collaboration strategies could be useful in evaluating efforts to mobilize cross-sector collaboration for health improvement at the community level.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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