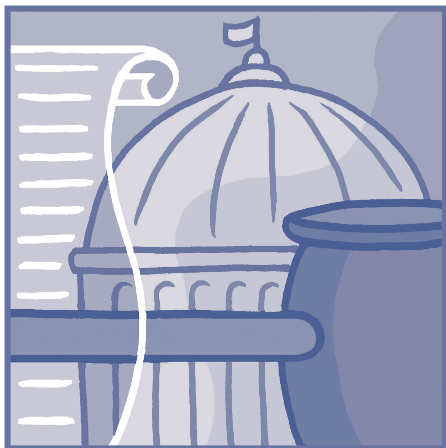


Finding Common Ground

Public Health Departments and Accountable Care Organizations: Finding Common Ground in Population Health

Richard Ingram, DrPH, F. Douglas Scutchfield, MD, and Julia F. Costich, JD, PhD

We examined areas of potential collaboration between accountable care organizations and public health agencies, as well as perceived barriers and facilitators.

We interviewed 9 key informants on 4 topics: advantages of public health agency involvement in accountable care organizations; services public health agencies could provide; practical, cultural, and legal barriers to accountable care organization–public health agency involvement; and business models that facilitate accountable care organization–public health agency collaboration.

Public health agencies could help accountable care organizations partner with community organizations and reach vulnerable patients, provide population-based services and surveillance data, and promote policies that improve member health. Barriers include accountable care organizations' need for short-term financial yield, limited public health agency technical and financial capacity, and the absence of a financial model. (*Am J Public Health.* 2015;105:840–846. doi: 10.2105/AJPH.2014.302483)

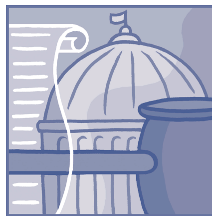
ACCOUNTABLE CARE ORGANIZATIONS ascribe to the goal of population health improvement, yet there is almost no documentation of their relationship with the organizations most engaged in the health of populations: public health agencies. (We use the term *public health agencies* to encompass local, regional, and state agencies.) The following analysis begins to fill this gap by describing current and potential roles for public health agencies in accountable care organizations and identifying approaches that appear particularly promising as well as barriers and facilitators to involvement.

One of the overarching themes of the Affordable Care Act (ACA) and related initiatives is the pursuit of the "triple aim": making care more patient centered, improving population health, and bending the medical care cost curve.[1] The ACA provides support for creative approaches to the triple aim, several of which fall under the auspices of the Center for Medicare and Medicaid Innovation. The Center for Medicare and Medicaid Innovation has developed programs supporting accountable care, bundled payment models, primary care transformation, and accelerated uptake of novel approaches to care. Several of the Center for Medicare and Medicaid Innovation's models may help bridge the gap between public health and health care, but one model—the accountable care organization—holds particular promise.[2–5]

Although Center for Medicare and Medicaid Innovation–sponsored accountable care organizations pursue the triple aim in the context of Medicare beneficiaries, other payer and provider groups also see the accountable care organization's potential. These include Medicaid, primarily driven by Center for Medicare and Medicaid Innovation's State Innovation Model program, as well as commercial insurance carriers, which sponsor some of the largest accountable care organizations.[6] Whatever form it takes, the accountable care organization model has experienced tremendous growth: although commercial accountable care organizations are difficult to enumerate, it appears that their number doubled between 2012 and 2013, from 221 to 486, and now exceeds 600, more than half serving Medicare beneficiaries.[7–9] Accountable care organizations are present in most health care markets, and more than 55% of Americans live in areas they serve.[10]

Under the accountable care organization model, provider groups assume greater responsibility for patient care cost and quality and in return are eligible to share in savings if they meet cost and quality goals. In some instances, they risk losing funding if they fail to meet goals.[11–14] Coordinated care helps meet the triple aim's quality and satisfaction goals by increasing the likelihood that patients are receiving appropriate care, at the appropriate time, and in the appropriate setting. Coordinated care also helps meet financial goals by reducing duplication and the potential for medical error. The focus on the health of the entire patient population, not just individual patients, allows the accountable care organization to identify preventive group interventions.

Public health agencies have expertise in relevant areas such as prevention, the health issues of high-risk populations, population health assessment, and community health improvement, so the accountable care organization model would appear to offer opportunities for synergy.[3,5] Evidence suggests that public policy



changes can promote relationships between public health agencies and other health care system members.[15] The accountable care organization's population is a subset of the community served by 1 or more public health departments, so the health status of accountable care organization populations is related to that of their communities.[5,16] The expertise of the public health agency in prevention and population health policy initiatives can support the accountable care organization in addressing the population health component of the triple aim. However, in any discussion of the public health–accountable care organization relationship, it is important to note that the meaning of *population* differs substantially between accountable care organizations and public health agencies.[2,3,16–18]

METHODS

The research team developed a semistructured interview protocol that examined potential areas of public health agency–accountable care organization cooperation as well as factors impeding or facilitating public health agency–accountable care organization interaction, with input from representatives from the US Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation, Centers for Disease Control and Prevention, and Mathematica Policy Research. The researchers decided to use key informant interviews because of the relative novelty of the topic, as suggested by a lack of published literature, as well as a lack of any well-known examples of successful accountable care organization–public health agency cooperation. The researchers believed that key informant interviews with subject matter experts would provide a better way to probe an unexplored topic. The protocol was approved by the University of Kentucky institutional review board, with the understanding that key informants would remain anonymous.

The interview protocol addressed the following areas: advantages of public health agency involvement in accountable care organizations; services public health agencies could provide an accountable care organization; practical, cultural, and legal barriers to accountable care organization–public health agency involvement; and business models that facilitate accountable care organization–public health agency relationships. Through a review of refereed and gray literature on accountable care organizations, we identified 9 key informants who were deeply and actively involved in the creation and representation of accountable care organizations or had detailed knowledge of public health agencies' likely roles in accountable care organizations. The informants were chosen to reflect the ideal traits of a key informant,[19] particularly depth and breadth of knowledge and role in their organizations and the greater health care, public health, and research practice communities. The researchers were prepared to identify more informants if necessary but believed that they had reached a point of descriptive saturation and that bringing in more subjects would only yield redundant data. Two of the 9 were affiliated with organizations that represented public health agencies, 2 were from policy organizations with expertise in US health care and had been involved in studies about accountable care organizations, 2 were academic leaders in health services research, 1 led a relevant provider association, 1 was an executive with a commercial accountable care organization, and 1 was with a consulting firm that worked closely with accountable care organizations. All interviews were recorded with the participants' consent and arranged by themes.

RESULTS

Our interviewees envisioned significant positive consequences of public health agency relationships for accountable care organizations but expressed concern that several barriers would impede realization of mutual benefits.

Advantages of Public Health Agency Involvement

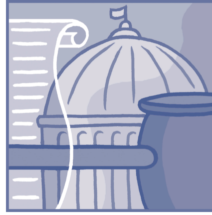
Partnerships with other community organizations. One commonly cited advantage for accountable care organizations that connect with public health agencies is that public health agency staff may connect the accountable care organizations with hard-to-reach member populations. Community health workers who know and have relationships with high-risk accountable care organization members are often part of a public health agency's staff. These community health workers could serve as patient navigators to help new accountable care organization members deal with unfamiliar delivery systems.

This strategy may be particularly advantageous with patients who were uninsured before they became eligible for Medicare or for whom safety-net providers were the usual source of care before they became accountable care organization members. Respondents suggested that the public health agency could support patients seeking services from accountable care organization providers, particularly if the public health agency no longer offers primary care.

The public health agency can also contribute to accountable care organization success by serving as a liaison between the accountable care organization and other community organizations whose activities affect accountable care organization members' health. Several respondents emphasized the need for broad involvement with community-based organizations in population-oriented policy development and implementation. As one respondent put it,

> If you don't engage all system members in transforming the infrastructure of a community together, then you are squeezing a balloon from one side, and the problems transfer somewhere else.

Although the accountable care organization may be the primary responsible party, public health agencies may provide an entry point to many community organizations. Financially, an accountable care organization member organization or the accountable care organization itself could contract with the public health agency



for an hourly staff rate supporting this type of liaison.

Financial savings through improved care management. Participants also pointed to the contribution public health agencies can make to effective care management. For accountable care organizations that are not traditional safety-net providers, managing vulnerable populations requires new skill sets. Public health agencies can help accountable care organizations manage their health more efficiently and effectively by providing services that complement those of the accountable care organization. Examples included diabetes management classes and peer support activities, smoking cessation interventions, and group nutrition counseling. In this model, successful public health agency collaboration may generate savings through improved service delivery and focus accountable care organizations on activity not otherwise available in the community.

Public health agency involvement in accountable care organizations also may yield long-term savings. One respondent suggested that as reimbursement models move from fee-for-service to bundled payments, investments in public health agency activities now could result in significant savings in 5 years because of lower rates of chronic disease. The respondent observed that although accountable care organization time horizons are currently more compressed, sustaining them will require a broader perspective.

Policy and political advantages. Respondents also pointed to policy and political advantages for accountable care organizations that involve public health agencies in their activities. Public health agencies often have the legal authority to implement policies that affect environmental factors associated with poor health, such as through clean indoor air laws. Accountable care organizations may be able to leverage that authority by partnering with public health agencies to craft policies that help them improve the health status of their members, who are a subset of the public health agency's population.

As local and state government entities, public health agencies are also positioned to influence political structures that affect accountable care organizations' operating environment. Accountable care organizations' involvement with public health agencies may facilitate their work with local and state political entities toward shared goals (e.g., supporting land use planning to promote walkable neighborhoods).

Services for Accountable Care Organizations

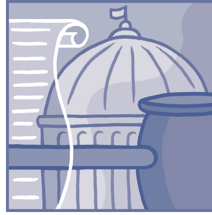
Respondents cited several services that public health agencies could provide to accountable care organization members, including both direct patient services and population-based activities. The most commonly cited direct services were patient education activities in areas of public health agency expertise, such as smoking cessation, and individual patient education, particularly post-discharge follow-up activities to reduce readmissions. Other commonly mentioned services encompassed traditional areas of public health practice, including vaccination—specifically, mass vaccination efforts; infectious disease control (e.g., contact tracing); maternal–child health; and environmental health services such as lead abatement and clean indoor air enforcement (for an example, see North Carolina's enforcement delegation to local health departments at http://www.tobaccopreventionandcontrol.ncdhhs.gov). Respondents also suggested that accountable care organizations enlist public health agencies to fill gaps in services their members require. Behavioral health surfaced frequently as a need the public health agency might address if it already provides such services.

Respondents suggested some operational support services that public health agencies could provide to accountable care organizations, with data sharing being most common. Other suggested activities included surveillance to provide the accountable care organization with timely notification of disease outbreaks, assessment of the accountable care organization population's health to support risk stratification, and assessment of accountable care organization service quality. It is important to note, however, that some of these activities may be outside the scope of expertise possessed by most public health agencies or require careful assessment of Health Insurance Portability and Accountability Act (HIPAA) privacy regulations. Other data-related activities mentioned by respondents include public health agency maintenance of vaccine, cancer, and prescription drug registries.

Barriers to Public Health Agency Involvement

Respondents cited many cultural and practical barriers to public health agency involvement with accountable care organizations. The most commonly cited barrier was the business orientation of the accountable care organization model. Respondents pointed to the accountable care organization model's focus on individual patient care and its structural orientation toward financial reward for member providers through shared savings in a relatively short time frame. By contrast, the traditional public health model offers population-based services with long time horizons regarding return on investment. Merging these perspectives may require a shift from, as one respondent put it, "managing the people you see to managing the population you serve." Respondents suggested that this difference is compounded by the perception that public health agencies lack the ability to quantify the immediate financial and economic effect of their activities. Accountable care organizations are unlikely to support public health agency activities without clearly defined short-term financial benefit to the accountable care organization. Respondents suggested that the public health agency–accountable care organization divide is further exacerbated by accountable care organizations' lack of awareness of public health agency roles and the absence of obvious models for successful public health agency–accountable care organization partnerships, making accountable care organizations leery of innovative approaches that lack evidence of potential effects.

Public health agency capacity was another barrier cited by



respondents. Even when a mutually beneficial arrangement has been identified, the public health agency may not have the capacity to provide specific services without substantial investment by one or both parties. Public health agencies also may lack the capacity to bill the accountable care organization–related payer directly for members' services, making it difficult to build the case for return on investment. Respondents noted that achieving and showing this type of financial benefit may require that public health agencies transition from reliance on grant-based funding to increased direct billing.

Respondents cited very few legal and regulatory barriers to public health agency–accountable care organization involvement, most often noting the inability of most, if not all, public health agencies to assume financial risk. Risk assumption is a requirement for full accountable care organization participation and thus could be a barrier for public health agency involvement in the context most familiar to accountable care organization management. Obviously, alternative routes to participation such as subcontracts with accountable care organization members or the accountable care organization itself would not encounter the barriers associated with risk bearing. Respondents also expressed the perception that HIPAA may impose regulatory and legal barriers to the data-sharing activities that are at the core of accountable care organizations' care coordination and public health agency activities such as contact tracing. Definitive federal guidance on data sharing under such circumstances would provide welcome reassurance. Finally, respondents observed that some state public health agencies regulate accountable care organization member entities, through, for example, provider licensure and certificate-of-need programs, so partnering with an accountable care organization might create a conflict of interest.

Business Models That Facilitate Relationships

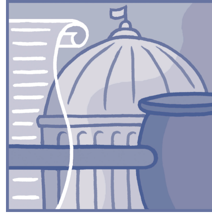
Respondents suggested a broad range of business models to promote accountable care organization–public health agency involvement. All observed that model success would be contingent on establishing how the public health agency fits into the accountable care organization business model and helps the accountable care organization attain shared savings.

One respondent suggested that including a global payment for meeting health targets in a geographic area would be most likely to promote public health agency–accountable care organization collaboration but acknowledged that such a model does not yet exist. Another respondent thought the plan should be built by identifying the health measures on which the public health agency and accountable care organization would be assessed, and the public health agency's role in addressing them, then building a business model that captures the savings associated with those specific activities. However, such savings must be quantified, which one respondent suggested could be accomplished by creating an actuarial projection of outcomes with no change over a specific period and comparing that with actual findings. Another respondent suggested that public health agencies could engage in a variant of risk sharing with the accountable care organization by allocating a contractual payment from the accountable care organization to support activities over a defined period and negotiating rules for gains or cost-reduction sharing with the accountable care organization. However, the accountable care organization would be protected by being allowed to recoup those savings if objectives were not met. Thus, the public health agency would not assume any up-front risk related to expenditures, but it would assume the risk of losing the accountable care organization set-aside.

DISCUSSION

It appears that a wide array of services could be shared between accountable care organizations and public health agencies. Many examples involved direct patient services that public health agencies already provide, such as immunization.[4,5,20] Opportunities for public health agency–accountable care organization collaboration may already exist in this area: the Premier health care alliance, for example, has proposed 9 population health measures to measure accountable care organization progress toward the triple aim, 4 of which encompass traditional areas of public health practice.[14]

Other examples focused on operational support services public health agencies could provide to accountable care organizations, including data collection and analysis. Accountable care organizations may be able to use disease registries maintained by public health agencies to measure and improve quality of care, and public health agencies could notify accountable care organizations of infectious disease outbreaks.[4,5,20] Several respondents observed that this activity could be reciprocal: the accountable care organization could provide the public health agency data for surveillance and assessment activities, to the extent permitted under HIPAA. They also recognized the capacity of public health workers to assist potential new accountable care organization members, particularly those who were previously uninsured, covered by Medicaid, and served by safety-net providers or the health department itself. The bridging function may be particularly important given the increase in coverage under the ACA. Some lower-income individuals cycle between Medicaid and private insurance coverage[21] and thus could receive services from both an accountable care organization and a safety-net provider as insurance status changes. Public health agency community health workers could help accountable care organization members receive coordinated care as coverage status changes, again with appropriate support and capacity. Care coordination may be particularly relevant if patients lose coverage during treatment for a communicable disease. For example, if a patient receiving treatment for tuberculosis loses commercial coverage, the public health agency's core services



would play an important role in continuing drug therapy.

The public health agency also may contract with an accountable care organization for staff time to support its role as convener of other health system members, an activity within the core public health function of assurance.[5,22,23] Public health agencies partner with a broad spectrum of community organizations, not-for-profits, and other governmental entities to offer public health services,[24] from preparedness activities to land use planning,[6,24,25] and may be able to leverage these relationships for liaison between the accountable care organization and other community-based organizations. Some accountable care organization patients may require services targeted to the more "upstream" determinants of health (e.g., housing or nutrition), particularly chronic disease patients and children. Because public health agencies have closer relationships with organizations and agencies that provide social, economic, and material support services, they could help craft a coordinated care plan that goes beyond clinical boundaries.

Respondents had 2 broad perspectives on the benefits of accountable care organization–public health agency collaboration. Some respondents saw the current state of collaboration as limited but having tremendous potential to benefit both participants. They characterized the current status as representing movement toward a more effective integrated delivery system, with a continuing development of partnerships that benefit both the public health agency and the accountable care organization. Others, particularly those who were less familiar with the public health system, were less sanguine and had difficulty seeing any reciprocal contributions between public health agencies and accountable care organizations. This perspective suggests that a major impediment to public health agency–accountable care organization collaboration may be limited awareness of the full array of public health agency services and the complementary roles of population health and patient health improvement.

In addition to the public health agency's inability to assume the financial risk required for full participation in an accountable care organization, public health agencies often lack the full range of third-party billing capacity.[26] Billing capacity may increase as some public health agencies become safety-net providers to serve low-income patients covered by subsidized commercial insurance through ACA exchange enrollment.[26]

Different types of accountable care organizations may offer different levels of opportunity for public health agency involvement. One respondent pointed out that hospitals, perhaps responding to Internal Revenue Service regulations on community benefit, are more likely than physician-group accountable care organization sponsors to have relationships with health departments as a part of their community health needs assessment. This presents a strong opportunity for public health agencies to assist and partner with the health care system.[27]

The most difficult question for participants was identifying the business case and financing mechanism that would promote relationships between accountable care organizations and public health agencies. The responses listed in the Results section were often elicited from respondents with some difficulty.

Limitations

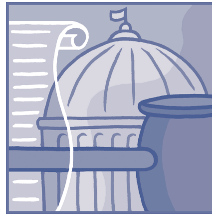
These findings do come with some limitations. The project used key informant interviews, which can yield rich data, but the data gathered can be subjective and thus limited in generalizability. The project also interviewed a relatively small number of individuals, further limiting generalizability. It is important to note, however, that this research was not intended to be generalizable; rather, it was intended to be an initial foray into a complex topic. More research needs to be done to examine this topic, perhaps by developing a survey based on these findings to determine whether they reflect the wider perception of the accountable care organization–public health communities.

Conclusions

The results of this work suggest several actions on the part of those who are interested in building accountable care organizations that include public health agencies. Advocates for public health need to be more proactive in helping the other members of the medical care system understand its potential role. Significant barriers include the medical care community's lack of understanding of the public health agency's potential role in community health systems. Public health agencies need to engage the medical care community as they consider their range of services and may wish to modify their service mix to address the requirements of the accountable care organizations and other medical care partners seeking to engage public health agencies.

Clearly, one prerequisite to accountable care organization–public health agency collaboration is evidence of the type and quantity of savings from public health agency involvement. Public health agency participation in activities such as community health needs assessments can begin to address this point. Greater public health agency involvement will require mechanisms that assist in the flow of accountable care organization funds, particularly payment mechanisms that allow the public health agency to share accountable care organization savings. For example, a hospital or health system accountable care organization sponsor may use its Internal Revenue Service community benefit obligations to support public health agency collaboration.[27]

As the conceptual structure of public health agency–accountable care organization collaborations develops, it should include mechanisms to quantify proportionate allocation of savings to the public health agency.[28] This is a new concept for many public health agencies, as is shared risk, and bearing risk is obviously problematic. Given the centrality of a savings-based business model to accountable care organization operations, it seems that better defining the business model for public health agency involvement is an important first step to promoting greater accountable care organization–public health agency partnerships. Key stakeholders, including the Centers for Disease



Control and Prevention, Centers for Medicare and Medicaid Services, Association of State and Territorial Health Officials, and National Association of County and City Health Officials, can develop mechanisms that allow for the financial incentives and arrangements that facilitate rather than inhibit efforts to bring together these 2 components of the system.

An underlying challenge in many of the issues discussed earlier is to define *population health* so that the efforts of public health agencies and accountable care organizations are integrated. A growing body of literature discusses the issue of population health in the accountable care organization model but does not address the role of public health agencies in the context of accountable care organization population health. Some have suggested that the accountable care organization population be defined more broadly,[20] an approach that also may allow accountable care organization leadership to better understand the full array of public health agency services.

Achieving the triple aim's population health goal will require mobilization of resources across the spectrum of public and private sector organizations. Public health agencies can harness the momentum provided by accountable care organizations to address the issues of cost, quality, and population health by taking the lead in developing new connections similar to those discussed in this article. It is imperative that those who represent and are concerned with population health, public health systems, and governmental public health begin conversations about their relationships with health care delivery systems to identify opportunities for immediate mutual benefit and that they encourage and support continued research into the questions raised by this early examination of one such issue.

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***Note**. All opinions and conclusions are those of the authors alone and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the Department of Health and Human Services.*

Contributors

R. Ingram and F. D. Scutchfield were responsible for the conceptualization and study design of this project and conducted the literature review and interviews. All of the authors were involved with summarizing the interviews, analyzing the qualitative findings, drafting the article, and reviewing the final version.

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Human Participant Protection

This study was approved by the University of Kentucky institutional review board.

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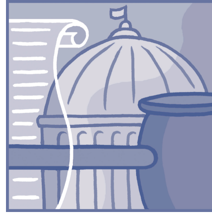

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Population Health, Public Health, and Accountable Care: Emerging Roles and Relationships

Julia F. Costich, JD, PhD, F. Douglas Scutchfield, MD, and Richard C. Ingram, DrPH

To identify roles for public health agencies (PHAs) in accountable care organizations (ACOs), along with their obstacles and facilitators, we interviewed individuals from 9 ACOs, including Medicare, Medicaid, and commercial payers.

We learned that PHAs participate in ACO-like partnerships with state Medicaid agencies, but interviewees identified barriers to collaboration with Medicare and commercial ACOs, including Medicare participation requirements, membership cost, risk-bearing restrictions, data-sharing constraints, differences between medicine and public health, and ACOs' investment yield needs. Collaboration was more likely when organizations had common objectives, ACO sponsors had substantial market share, PHA representatives served on ACO advisory boards, and there were preexisting contractual relationships.

ACO–PHA relationships are not as straightforward as their shared use of the term "population health" would suggest, but some ACO partnerships could give PHAs access to new revenue streams. (*Am J Public Health.* 2015;105:846–850. doi:10.2105/AJPH.2014.302484)

ACCOUNTABLE CARE ORGANIzations (ACOs) have proliferated across the United States to serve patients covered by Medicare, commercial insurers, and Medicaid. An ACO is an association of providers and third-party payers that assumes a defined range of responsibilities for a specific population and is held accountable, financially as well as through specific quality indicators, for its members' health.[1]

Because of ACOs' population health orientation and need for related expertise, there may be roles or market niches for state or local public health agencies (PHAs) with ACOs. For example, the surveillance function of PHAs could identify persons at risk for having costly health problems, particularly communicable conditions such as tuberculosis and sexually transmitted infections. PHAs often maintain registries of groups or serve hard-to-reach populations that could incur disproportionate costs as ACO members, such as persons with cancer or stroke, infants with birth anomalies, and vulnerable populations needing attention during emergencies. However, although public health competencies are used to address the health of all those residing in a PHA's jurisdiction, the attributed population in an ACO includes only individuals who receive primary care from ACO member providers and is thus a small subset of the population served by a PHA.[1]

Considering this distinction between the populations served by PHAs and ACOs, why would ACO collaborations be of interest to PHAs? One answer is that government public health programs have undergone repeated funding cuts at all levels since 2008 and are thus under some pressure to identify alternative revenue sources, including ACOs.[2,3] PHAs could also be interested in ACO collaboration because their core mission is to improve the health of the populations they serve. When a PHA helps an ACO improve its members' health, it raises the health status of its own population.

METHODS

After performing a literature review and taking into consideration the key informant input described in our companion article,[4] we identified 18 communities where there appeared to be relationships between ACOs and PHAs, and we selected a group that represented Medicare, Medicaid, and commercial funding sources. We conducted 9 semistructured telephone interviews with 1 or more representatives of ACOs and PHAs or related agencies at 9 sites. Our questions addressed

1. whether there was some form of ACO–PHA relationship,
2. resources and activities involved in the relationships,
3. perceptions of the strengths and weaknesses of the relationships,
4. barriers to and facilitators of ACO–PHA relationships,
5. how barriers had been addressed, and
6. opportunities provided by ACO–PHA relationships.

Eight of the 9 organizations included a Medicare ACO. Like most Medicare ACOs, they used the shared savings model, which divides dollars attributable to cost reduction between Centers for Medicare and Medicaid Services and ACOs that meet stringent cost and quality metrics.[5] All the Medicare ACO–related