

Accountable Care Organizations and Population Health Organizations

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Abstract Accountable care organizations (ACOs) and hospitals are investing in improving “population health,” by which they nearly always mean the health of the “population” of patients “attributed” by Medicare, Medicaid, or private health insurers to their organizations. But *population health* can and should also mean “the health of the entire population in a geographic area.” We present arguments for and against ACOs and hospitals investing in affecting the socioeconomic determinants of health to improve the health of the population in their geographic area, and we provide examples of ACOs and hospitals that are doing so in a limited way. These examples suggest that ACOs and hospitals can work with other organizations in their community to improve population health. We briefly present recent proposals for such coalitions and for how they could be financed to be sustainable.

Keywords accountable care organizations, population health, public health

Everyone in health care is working to improve population health these days. Or will be very soon. Or feel that they ought to be. Accountable care organizations (ACOs) are working to improve population health (Noble, Greenhalgh, and Casalino 2014). Many hospitals that are not part of ACOs are also beginning to proclaim their interest in population health (HSLG 2013; Health Research and Educational Trust 2012). Hospitals’ interest in improving population health appears to be increasing because of the sudden ubiquity of the phrase, because many hospitals are participating in ACOs (Colla et al. 2014), and because even hospitals not participating in ACOs increasingly have incentives to reduce their number of potentially avoidable admissions, readmissions, and emergency department visits

(Ryan and Mushlin 2014). A plethora of conferences and consulting companies promise to share techniques for improving population health. In just a few years—since Donald Berwick proclaimed the triple aim for health care (Berwick, Nolan, and Whittington 2008), and since CMS, in accord with the Affordable Care Act, began its ACO program—improving population health has become the thing to do. In the language of sociological institutional theory, it is gaining “taken for granted” status (Scott and Backman 1990).

The voices in the wilderness who have long been calling for efforts to improve population health—public health leaders such as David A. Kindig—should be delighted (Kindig and Stoddart 2003; Institute of Medicine 2002). Or should they? Traditionally, public health advocates have argued that socioeconomic factors such as poverty, poor education, and inadequate housing affect the health of the population far more than medical care does (Evans, Barer, and Marmor 1994; Institute of Medicine 2002). But the population health efforts that ACOs are now undertaking are largely not directed toward these factors. They are aimed at providing better medical care for the population of patients “attributed” to their organizations, rather than trying to improve the health of the population of people in the geographic communities in which they are located (Noble, Greenhalgh, and Casalino 2014; Calman, Hauser, and Chokshi 2012; Hacker and Walker 2013).

Does it matter that the phrase *population health* is being used so widely—and with so much enthusiasm—as if it refers to “geographic population health,” when in fact it is being used in a very different, much more narrow, much more medical sense? George Orwell (1968: 128) wrote that by choosing one’s words with care “one can think more clearly, and to think clearly is a necessary first step.” If ACOs are believed to be improving “population health,” then important areas such as housing, education, and public health services, which are chronically underfunded in any case (Institute of Medicine 2014), may be obscured (Noble and Casalino 2013).

In this article we discuss two competing meanings of the phrase *population health*. We argue that *population health* should be understood as “the health of the entire population of people in a geographic area.” We then address the question of whether ACOs and hospitals should be trying to improve geographic population health and discuss whether they currently have the incentives and the capabilities to do so. We provide examples of ACOs and hospitals that are making efforts to improve population health in the geographic meaning of the phrase. We conclude that,

given their current incentives and capabilities, and the fact that they are organizations whose primary function is to provide medical care, ACOs and hospitals should probably focus on improving the health of their “population” of attributed patients. However, we suggest that ACOs and hospitals could be key partners in population health organizations—broad coalitions that aim to improve the health of the entire population of the geographic areas in which they are located (Magnan et al. 2012). We conclude with a brief discussion of how population health organizations might be funded.

ACOs, Attribution, and Moving beyond the Single-Encounter View of Medical Care

Accountable care organizations are entities that accept responsibility for the quality cost of care of the population of patients attributed to the ACO by a payer (Berenson and Burton 2012; Fisher, McClellan, and Safran 2011). The type and extent of responsibility is detailed in a contract that the ACO signs with a payer, which may be a government program such as Medicare or a private insurance plan such as Blue Cross Blue Shield of Massachusetts (Colla et al. 2014; Song et al. 2012). Medicare attributes patients to an ACO on an annual basis based on each patient’s claims data from prior years. Private insurers can use the same method, but for insurance plans that require the patient to designate a primary care physician, the patient will be attributed to the ACO of which the primary care physician is a member. Many ACOs include a wide variety of organizations; the most common types are (1) ACOs that include one or more hospitals with their employed physicians and/or with independent physicians who agree to participate in the ACO and (2) ACOs that include a large medical group or independent practice association that may or may not contract with a hospital partner to be part of the ACO (Colla et al. 2014; Muhlestein et al. 2014; Shortell et al. 2014). Some ACOs include other types of facilities, such as postacute care facilities.

Traditionally, US hospitals and physicians have focused on an encounter-based view of care. They do the best they can for whatever patients show up, while the patient is in their presence—in other words, during an office visit with a physician or during an emergency department visit or inpatient hospitalization. The “fee-for-service” payment system, which pays for services provided to patients during a visit or hospitalization but not for other services, has reinforced this traditional view of medical care. At present, ACOs are generally also paid on a fee-for-service basis, but they

are given substantial financial incentives by payers to try to contain the overall costs of patients' care and to improve the quality of care, particularly for patients with chronic illnesses such as diabetes. This gives hospitals and physicians that participate in ACO contracts an incentive to identify all their attributed patients who should be receiving care—even if these patients don't spontaneously seek care—and to provide care for them not only during face-to-face visits but also via phone, e-mail, and contact with nurse care managers specially trained to assist patients with chronic illnesses. Thus, ACOs have incentives to work proactively and systematically improve their patients' health. This framework is what prompts enthusiasm for "population health" among ACO leaders (Crosson 2011).

Two Meanings of Population Health

The use of the phrase *population health* to refer primarily to improving the medical care provided to patients "attributed" to an organization whose traditional mission has been to provide medical care seems to have resulted from two intertwined factors: first, the creation of the Medicare ACO program as a result of the Affordable Care Act and, second, Berwick's urging that health care organizations should focus on what he famously named the "triple aim." Berwick, who was the administrator of CMS when the ACO program was created, argued that the purpose of ACOs is "to foster change in patient care so as to accelerate progress toward a three-part aim: better care for individuals, *better health for populations*, and slower growth in costs through improvements in care." (Berwick 2011: 1; emphasis added).

It was and is easy to move from this formulation to ACO leaders' belief that changes they are making to improve patient care are creating better health for populations (Noble, Greenhalgh, and Casalino 2014). This is especially true because the phrase *population health* appears four times in the Affordable Care Act but is never formally defined, while in the CMS final rule for ACOs, the phrase *population health* is used throughout to mean the health of the Medicare beneficiaries attributed to an ACO (US Department of Health and Human Services 2011). The belief of ACO leaders that they are working to improve population health is true to the extent that medical care improves the health of individuals and to the extent that the patients of an ACO are members of the population in a geographic area. But the patients of most ACOs constitute only a fraction of the people living in the ACO's geographic area, and there is good evidence that medical care is less important than socioeconomic factors in

determining the health of a population (Kindig, Asada, and Booske 2008). For example, researchers at the University of Wisconsin estimate that the health of a population is determined 20 percent by medical care; 30 percent by health behaviors such as smoking, diet, and exercise; 40 percent by socioeconomic factors such as education and income; and 10 percent by the physical environment (environmental quality and the built environment) (University of Wisconsin Population Health Institute, n.d.). The very poor performance of the United States compared to other industrialized countries on measures of health is generally thought to be due in large part to these nonmedical factors (Woolf and Aron 2013; Bradley and Taylor 2013).

Berwick and the leaders of most ACOs are no doubt well aware of the importance of these nonmedical factors, but use of the phrase *population health* to refer to medical care for an ACO's attributed population of patients is widespread and appears to be expanding, fueled by ACO leaders' enthusiasm to fundamentally change the ways they provide medical care and by consultants and conferences eager to demonstrate ways to improve "population health."

The second meaning of *population health* is "the health of the population in a geographic area." As Kindig (2007) and others have pointed out, a population may be any defined set of individuals—for example, a prison population or the population of patients attributed to an ACO. Using this interpretation, ACO leaders who claim to be improving population health—when what they really mean is improving the health of their population of attributed patients—are not wrong. It is the conflation of this first meaning of *population health* with the second meaning—population health as the health of all the people in a geographic area—that may lead to problems.

Should ACOs Try to Improve Geographic Population Health? Con and Pro

There are good reasons to answer no to this question. Generally speaking, ACOs have neither the incentives nor the capabilities to address geographic population health. The incentives ACO contracts provide are to control the cost and improve the quality of care only for their attributed patients, not for the entire population of their geographic area. Many measures of the quality of care provided by ACOs—measures such as the use of beta blockers for left ventricular systolic dysfunction—are based on the medical care provided to patients, not on improvements in patients' overall

health or in the socioeconomic factors that affect patients' health. Furthermore, ACOs are composed of provider organizations (primarily hospitals and medical groups) whose core capabilities relate to the provision of medical care. Their expertise does not lie in improving housing or education, reducing poverty, changing the built environment, or leading public health initiatives. And ACOs are not the government. They lack the legal authority that government agencies possess to intervene to improve socioeconomic factors. In any case, ACO leaders have all they can handle trying to keep their revenues above their expenses as Medicare, Medicaid, and private health insurers reduce the amount they pay for medical care (Iglehart 2014; Bazzoli, Fareed, and Waters 2014). They must improve medical care for their attributed patients and deal with the uncertainty and the changes demanded by current health reform efforts. They must develop electronic health records, learn how to operate in an environment with a proliferation of new payment methods and with an influx of newly insured patients, and cut the costs of delivering care in their hospitals and medical groups.

In addition, many ACOs are located in geographic areas where other ACOs also exist, creating a potential free rider problem. If ACO A were to invest in improving health for all the people in a geographic area, then ACO B would also benefit from this investment. Furthermore, investments in improving education, for example, may not produce benefits for many years. This is far outside the planning horizon of hospital and medical group leaders. Furthermore, most existing ACO contracts have relatively small financial incentives for improving the quality and controlling the cost of health care, so the return on investments in improving geographic population health is likely to be small.

Given their lack of incentives and capabilities, why should ACOs be expected to invest in improving geographic population health? At present, we don't believe that there is an entirely compelling answer to this question. However, many ACOs—especially if they are based on a hospital or hospital system—have considerable financial and social capital. Hospitals are often the largest or one of the largest employers in their community, may be one of the largest owners of real estate, and often have a highly positive image in their community. Many hospitals and ACOs believe that it is part of their mission to reduce disparities in health—addressing socioeconomic factors directly could help greatly in this mission (Health Research and Educational Trust 2014).

Proponents of ACO and hospital investments to improve geographic population health argue that ACOs and hospitals need not try to do everything

themselves or try to substitute for government efforts (Eggleston and Finkelstein 2014; Isham et al. 2013). But they could lead by example (with their own employees and in their own built environments), and they could help catalyze and cooperate with broader efforts to improve population health. They could work with public health agencies, community groups, schools, and other large employers, for example, adding social, political, and financial capital to initiatives. The recently created Health Systems Learning Group (HSLG 2013), which includes thirty-six large nonprofit hospital-based health systems, focuses on improving geographic population health through partnering with diverse stakeholders. In a recent monograph, the HSLG (2013: 10) argues:

Decent and efficient are the same thing. New and hopeful for us as health care organizations is realizing that we now know enough to extend that mission logic to engage the social environments from which our most complex patients come . . . if we join partners at community scale. This calls for operational changes that align with the profound changes occurring in all aspects in the provision of health care and partnering with diverse stakeholders in our communities to address the underlying causes of health problems.

Proponents of ACO efforts to improve geographic population health suggest that when these organizations have a high market share in a geographic area, they have a stronger incentive to try to improve the health of all people in their area. Healthier people have lower medical care costs, and ACO contracts reward ACOs for reducing these costs. This is particularly relevant for ACOs that include hospitals that are anchor institutions in their community and may be true for such anchor hospitals even if they are not part of an ACO, because they are often the largest employer in their community.

In addition, the Affordable Care Act, as well as some state government regulations, requires nonprofit hospitals to periodically conduct community health needs assessments and then to develop and implement community health action plans (Nixon Peabody LLP 2013). In addition, the federal and state governments require nonprofit hospitals to provide “community benefits” and to report the type and dollar value of benefits they provide. At present, 90 percent of the community benefits that hospitals provide consist of the following: “charity care” for individuals who cannot afford to pay for their care; the “Medicaid gap” between what Medicaid pays and what a hospital claims to be its cost of providing care;

subsidized medical services (services such as burn units, for which payers pay less than the hospital's cost of providing the service); and "professional education" (Young et al. 2013). On average, 5 percent of the community benefits that hospitals provide go to community health improvement efforts. These often consist of sponsoring health fairs, presentations by hospital physicians, and so forth and do not typically address socioeconomic factors important to health.

ACO and Hospital Efforts to Improve Geographic Population Health

We reviewed the peer-reviewed and gray literature, and spoke to knowledgeable individuals, to gain a sense of ACO and hospital efforts to improve geographic population health through addressing socioeconomic factors that affect health. In this section we briefly highlight some interesting examples.

The Cincinnati Children's Hospital Medical Center has used community benefit dollars to fund a community health initiative. The initiative partners with community-based organizations to address asthma, accidental injuries, poor nutrition, and other preventable illnesses and injuries in their community. The initiative uses geographic information systems technology to identify "hot spots," or communities with the highest incidence of preventable health conditions, and then develops strategies to address those conditions. For example, by mapping the homes of readmitted asthma patients, the initiative identified clusters of patients living in substandard housing units owned by the same landlord. The initiative then partnered with a local legal aid association to help tenants compel the landlord to make necessary housing improvements (Cantor et al. 2013).

Advocate Health Care's Christ Medical Center, a level 1 trauma center in Oak Lawn, Illinois, is partnering with CeaseFire Illinois, a nonprofit organization, to develop the region's first hospital-based gun violence prevention project. The program works in five "hot spot" communities where it employs trained "violence interrupters" and community-based outreach workers. The violence interrupters—often individuals who were previously in street gangs—use cognitive-behavioral methods to mediate conflict between gangs and intervene to stop the cycle of retaliatory violence that threatens after a shooting. The community-based outreach workers provide counseling and services to high-risk individuals in communities with high violence rates. Advocate contributed \$120,000 to

the project in 2013 and is attempting to obtain philanthropic support for the project through the Advocate Charitable Foundation. Advocate has ACO contracts with Medicare and with health insurance plans (HSLG 2013).

The Henry Ford Health System, a Michigan ACO, is the 2011 winner of the Malcolm Baldrige National Quality Award and one of the largest and best-known systems in the United States and has explicitly included “community health” as a core “pillar” in its organizational strategic plan. Henry Ford executives now report relevant metrics to the Henry Ford Board. The system’s Community Pillar Team convenes high-ranking leaders from the health system’s seven business units on a quarterly basis to review metrics on strategic objectives in key areas of infrastructure, wellness, access, equity, and new and emerging programs/partnerships, and working groups in each of these areas meet regularly (HSLG 2013). The Henry Ford Health System (2014) reports that it is “engaged in literally thousands of programs and activities that lead to healthier people and communities—from community and faith-based partnerships to school-based health, from cancer prevention and screening to diabetes education, worksite health promotion, and many, many more.” However, these efforts, while they appear to be very extensive, also appear to be mainly the kinds of community benefit activities that hospitals have traditionally done, rather than focus on directly affecting the socioeconomic determinants of health.

HealthPartners, based in Minneapolis–St. Paul, is a large, consumer-governed integrated health system that includes a large health insurance plan, five hospitals, and thousands of physicians. HealthPartners provided \$200,000 in financial support to help start the Saint Paul Promise Neighborhood (SPPN) program; senior HealthPartners executives have served on the organization’s advisory board from the beginning. The SPPN “provides wrap-around supports for children and their families from birth through grade 5. Three target schools are working with the initiative to serve SPPN children and families” (Amherst H. Wilder Foundation 2014).

St. Catherine Hospital in Garden City, Kansas, is helping lead the Finney County Community Health Coalition—an alliance of over fifty community health partners—to address three major community health issues: reducing risky behaviors among young people (i.e., teen pregnancy, smoking, and drinking); improving transportation; and supporting families and children through literacy training and preventing domestic violence. The coalition helped pass a no-smoking ordinance within the city, create a fixed-route bus service, develop a center for children and families, and

establish a family literacy program specifically for Burmese, Somalian, and Hispanic residents (AHA 2014).

St. Joseph Hospital in Sonoma, California, supports an Agents of Change Training in Our Neighborhoods (ACTION) program that provides leadership training for community activists and helps support these activists through its St. Joseph Neighborhood Care Staff. Among other things, ACTION leaders have blocked new liquor stores in the neighborhood, organized multiple community gardens, created a farm cooperative through a partnership with day laborers and a local church, and worked with the local school district to offer healthier food in schools (HSLG 2013).

ACOs, Hospitals, and Accountable Communities for Health

Overall, serious efforts by ACOs and hospitals to have an impact on the socioeconomic determinants of health appear to be modest. This is not surprising, given their lack of incentives and capabilities. It is reasonable to ask whether an organization whose core business is to provide medical care should be expected to make major investments in taking on complex, fundamental social problems. It might be more reasonable to expect that efforts by ACOs and hospitals will remain focused, as they are now, on care management programs for their patients with chronic illnesses and on educating the population in the geographic area in which they are located about specific diseases, screening and immunization programs, and healthy behaviors. These efforts could be financed by the savings generated from performing well in ACO contracts; by more focused use of community benefit spending (hospital community benefit spending is estimated to be at least \$13 billion annually) (Young et al. 2013); and by a reduction in preventable admissions of poor patients who lack insurance or whose Medicaid insurance does not cover the hospital or physician costs of providing care. In addition, these efforts would meet the Affordable Care Act's requirements, and the requirements of some states, that hospitals assess community health needs every three years and develop and implement community services plans to meet these needs.

In addition, ACOs and hospitals could take on important roles in coalitions aimed at improving population health. Doing so would be compatible with their mission and, from a financial point of view, would be particularly attractive to ACOs and hospitals that have a large market share in their geographic area. During the past few years, several discussion

papers and reports have emphasized that improving geographic population health will require an integrator at the community level that is able to “mesh clinical care, public health programs and community-based initiatives in a coherent strategy to meet the community’s needs” (Hester and Stange 2014: 1). Recognizing that ACOs and hospitals are not likely on their own to have the incentives or the capabilities to effect fundamental changes in the socioeconomic determinants of health, some analysts have called for the creation of “integrator” coalitions. The coalition, which might be called a community health system (Hester and Stange 2014), a population health organization (Yasnoff, Shortliffe, and Shortell 2014), an accountable care community (Austen Bioinnovation Institute in Akron 2012), or an accountable health community (Magnan et al. 2012), would manage a population health budget, allocate resources, and be held accountable for performance on a range of population health metrics, including metrics of reducing socioeconomic disparities in health.

Population health organizations, as we will call these coalitions, would focus on the underlying behavioral and social determinants of health. This would mean involving the educational, housing, transportation, public safety, public health, and related sectors. Sometimes referred to as a “health in all” policies approach, it reflects the fact that policies developed in each of these sectors can have a profound influence on health and should be taken into account early in the process of policy development (Cantor et al. 2013). A population health organization would be a cross-sector community-wide leadership body that would work to develop shared goals and priorities and a shared sense of mission.

Early efforts have been made to move the population health organization concept beyond theory to reality in some parts of the country (Hester and Stange 2014). In Ohio, more than seventy organizations have come together from many sectors with an initial focus on diabetes (Cantor et al. 2013; Austen Bioinnovation Institute in Akron 2012). Other initiatives are occurring that are using CMS State Innovation Model (SIM) grants and proposals. For example in Washington State, the state hospital association and ninety-five other organizations plan to develop accountable health communities that will improve selected population health metrics and lower the annual health care cost growth 2 percentage points below the national health expenditure trend (Washington State Health Care Authority 2014). Minnesota is using SIM funds to test accountable health models with emphasis on its Medicaid population (Minnesota Department of Health 2014). California has included funding to help “jump-start” up to

three population health organizations as part of its SIM proposal (California Health and Human Services Agency 2014). It is developing a guide sheet for communities to select interventions “most likely to succeed” in the areas of diabetes, cardiovascular disease, and asthma based on the setting of the intervention (e.g., clinical, community, or both), strength of evidence, ease of implementation, and “time to impact” (one to three years, four to seven years, and eight to ten years). Delivery system organizations are playing key roles in all of these efforts.

Government and foundation grants can help fund the start-up costs of population health organizations, but for these organizations to succeed, they would have to be sustainable—that is, have reliable ongoing sources of funding. One source of funding could be a risk-adjusted community-wide population health budget allocated to the population health organization, with the level of funding tied to meeting community-wide population health targets such as reducing over a defined period the prevalence of diabetes or the percentage of children and adults who are obese (Shortell 2013). These budgets could be funded in part by Medicare, Medicaid, and private health insurers, which would all benefit by paying less for medical care in communities in which population health organizations helped create healthier populations. Savings achieved from meeting predetermined outcome measures could both fund the population health organization and be shared by the cross-sector organizations, including delivery system ACOs.

Population health organizations might also obtain funding from innovative sources that tap into new and existing pools of public and private capital (Cantor et al. 2013; Hester and Stange 2014; Prevention Institute 2014). For example, a wellness trust could be established to support a population health organization. The trust could be funded, perhaps, from a small tax on insurers and hospitals, as in the recently created Massachusetts Wellness and Prevention Trust (Cantor et al. 2013). Each insurer and hospital would benefit from a healthier population, and having all insurers and hospitals contribute would overcome the free rider problem that would occur if a single insurer or hospital invested in improving population health in a geographic area. Funding could also come from redirection of existing government funds. For example, the Medicare Trust Fund provides funds for quality improvement organizations (now called quality improvement networks) to ensure that Medicare recipients receive high-quality care. Quality improvement organization funds could be redirected, or additional funds from the Medicare Trust Fund could go to support wellness trusts or population health organizations.

Health impact bonds could be another source of funding for population health organizations (Cantor et al. 2013; Hester and Stange 2014). Capital would be raised from private investors; in return for their investment, the investors would receive a portion of any savings generated by the population health organization.

Conclusion

Both ACOs and hospitals have more than enough to do to try to improve the health of their own populations of patients. They are limited in the incentives, the capabilities, and the authority to take primary responsibility for the health of the population in their geographic areas. But both ACOs and hospitals could be important partners in population health organization coalitions that do take responsibility for the health of their geographic areas. These coalitions will not be easy to create or to fund; belief that they could exist may seem excessively optimistic. But it may be useful to remember that just a few years ago ACOs were described as unicorns—beautiful creatures that no one had ever seen—and *population health* was a phrase that was very rarely heard outside narrow policy circles.

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