Not-So-Strange Bedfellows: Models of Interaction between Managed Care Plans and Public Health Agencies

PAUL K. HALVERSON, GLEN P. MAYS, ARNOLD D. KALUZNY, and THOMAS B. RICHARDS

University of North Carolina at Chapel Hill; Centers for Disease Control and Prevention, Atlanta

The growth of managed care is changing the organizational landscape of health care in the United States. Increasingly, private employers and government-financed health programs like Medicare and Medicaid are purchasing health care from organizations willing to assume both clinical and financial responsibility for the health outcomes of their enrollees (Shortell et al. 1993). These organizations secure cost savings largely through the financial and administrative relations they establish with physicians, medical groups, hospitals, and other health care organizations. As the dominant providers of medical care, physicians and hospitals typically receive most of the attention in policy discussions involving organizational reconfiguration under managed care (Burns and Thorpe 1993; Shortell, Gillies, and Anderson 1994; Cave 1995). As managed care plans expand to cover new patient populations, such as Medicaid and Medicare beneficiaries, and as they confront maturing managed care markets in which competition is based more on quality and health outcomes than on health care

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prices, they may have to acquire new allies. As in politics, the changing incentives of managed care may create strange bedfellows.

Although they are often overlooked in local health care delivery markets, public health agencies are becoming more active in the field of managed care. Several recent work groups and conferences convened by the U.S. Centers for Disease Control and Prevention (CDC) and the American Association of Health Plans (AAHP), a trade association for managed care plans, exemplify a recognition of the potential for collaboration between public health agencies and managed care plans (Centers for Disease Control and Prevention 1995b). Thus, traditional views about the polarity of these types of organizations may no longer apply.

We will critically examine the interorganizational relations that are forming between managed care plans and local public health agencies in the United States. We use descriptive findings and examples identified from ongoing research in selected communities to characterize the nature of these newly emerging structures in the health care system. (See the Appendix for methodology.) In the first section, we describe the structural, functional, and strategic models of interaction that are developing between managed care plans and public health agencies. Next, we discuss policy implications of these models from both public health and managed care perspectives. Finally, we comment on the larger economic and political forces that may continue to drive relations between managed care and public health agencies as local health systems evolve.

Basic Models of Interaction between Managed Care and Public Health

The emerging diverse and complex relations between managed care plans and public health agencies can be classified and described along three broad dimensions: The *strategic attributes* of managed care–public health relations indicate the motivations, goals, and objectives of these alliances, from the perspectives of both health care categories. The *functional attributes* of managed care–public health relations reveal the range of activities and operations that they jointly carry out and delineate the individuals, groups, and populations reached by these collective activities. Finally, the *structural attributes* of these relations disclose the mechanisms of their interactions and offer an indication of the strength and

durability of such associations. Several common models of interaction can be identified along each of these three dimensions.

It is important to note that these dimensions, and the models identified from them, are not mutually exclusive, but rather complementary and mutually reinforcing. A single, observed alliance between a managed care plan and a public health agency can be simultaneously described and classified according to its strategic objectives, its functional accomplishments, and its structural characteristics. Moreover, these three attributes have numerous interrelations and codependencies. The strategic objectives of public health–managed care interactions heavily influence their functional and structural attributes as well.

It is also important to recognize the operational definitions of "public health agency" and "managed care plan" that we have used in studying these organizations and in distilling their models of interaction. Our observations of public health agencies are limited to "official" governmental agencies that operate in the "local" geopolitical subdivisions of a state, most often as the governmental units of cities, townships, or counties, but sometimes as multicounty authorities. Our observations of managed care plans are limited to organizations that operate a health maintenance organization (HMO). Many of the managed care plans we examine offer other managed care "products," such as preferred provider organizations (PPOs) and point-of-service (POS) plans. We limit our discussion to managed care plans offering HMO products because our research has failed to identify any cases of public health agencies interacting with plans that do not offer this type of product.

Finally, it should be noted that this review focuses on links between managed care plans and public health agencies at the local level, based on the premise that this is where the majority of individual and community-based public health services are delivered. Nevertheless, the role of state health departments in managing, evaluating, and contributing to these alliances should not be overlooked. This role includes critical policy and program-level activities that lead to and support local alliances: Medicaid contract management and enforcement; performance evaluation and monitoring; certification and inspection in conjunction with state departments of insurance; and funding for collaborative service delivery programs. State health department efforts provide a context and foundation for all of the alliance models examined in this study. Indeed, the models of strategic, functional, and structural alliances described here are likely to be sensitive to the context and

environment in which they emerge, and their range at least partly reflects the diversity of their environments.

Strategic Models of Interaction

At the most basic level, collaborative relations between managed care plans and public health agencies can be classified according to the strategic intent and purpose of the alliance. Three basic models of strategic purpose that have been observed among interorganizational alliances in business and industry also apply to relations between managed care and public health (table 1) (Kanter 1994). The most transitory of these alliances, the *opportunistic model*, allows health plans and public health agencies to exchange knowledge and expertise that will assist each organization in pursuing its own independent interests and objectives. Under this model, organizations collaborate only long enough to acquire the knowledge that will enable them to embark upon a new activity or area of service. These alliances take shape either when a managed care plan seeks to begin enrolling Medicaid beneficiaries or other population groups that are typically served by public health agencies or when a public health agency seeks to develop its own managed care program for serving some or all of its clients. These two circumstances may occur at the same time, resulting in an opportunistic relation that ultimately allows two competing Medicaid managed care plans to develop, one of which is operated by the public health agency.

A second type of strategic relation between managed care and public health involves the joint production of some good or service that is needed by both types of organizations. Under the *shared services model*, health plans and public health agencies agree to share the costs of establishing and maintaining initiatives like childhood immunization databases, communicable disease registries, public health media messages, and community health surveillance projects. A critical aspect of this model is that health plans and public health agencies typically have different motives for engaging in these cooperative initiatives; consequently, they derive different types and levels of benefit from them. A health plan's objective may be to acquire data for its own group of enrollees or to market its services to potential enrollees, whereas a health department's objective may be to identify health threats in the community at large and to distribute health information on a communitywide

TABLE 1
Basic Strategic Models of Interaction between Managed Care Organizations and Public Health Agencies

Model Description[a]	Strategic Goals of	
	Managed Care Plans	Public Health Agencies
Opportunistic model		
Interaction is established to obtain knowledge and expertise in a new field or activity that will assist participating organizations in pursuing their own interests.	Acquire skills in managing the care of vulnerable population groups; using epidemiologic techniques for disease identification; designing and managing health promotion and disease prevention interventions.	Acquire skills in projecting and managing costs of service delivery; conducting cost-effectiveness analyses for services needed by clients; negotiating service contracts; performing case management and utilization review.
Shared services model		
Interaction is established to produce jointly a service needed by both organizations in pursuing their own interests.	Share the costs associated with data collection efforts like immunization registries and community health surveillance. Health plans use these data to improve the management of enrollees' care and to project costs associated with covering new enrollees.	Share the costs of data collection efforts and ensure the completeness of data by securing the participation of all major health care providers. Health agencies use data for identifying health risks in the community and targeting community-wide interventions.
Stakeholder model		
Interaction is established with organizations that are central to the core mission or "production process" of an organization in order to improve the quality and efficiency of the goods or services produced.	Secure the participation of public health agencies as key service providers to health plan enrollees. Support the health promotion and disease prevention efforts of public health agencies that directly impact the health of current and/or potential health plan enrollees.	Secure the involvement of health plans in maximizing the quality and accessibility of health services provided to clients of public health agencies. Use health plans to achieve optimal delivery of services to clients.

[a]Adapted from R.M. Kanter's typology of strategic alliances (1994).

basis. Through the shared services model, organizations may achieve multiple, divergent objectives through common efforts.

The *stakeholder model* represents a third type of strategic relation between public health and managed care, in which each organization assumes a leading role in the operation or "production process" of its partner. Thus, the managed care plan performs an activity that is central to the public health mission of the health department, and, similarly, the department becomes actively engaged in a core aspect of the health plan management objectives. Typically, the alliance entails delivery of health services to a defined population that is of concern to both the health plan and the public health agency, possibly a health plan's enrollee group, a health department's service population, or the intersection or union of these two populations. Organizations engaging in this type of strategic relation collaborate to achieve mutual objectives in the defined population: for example, improving health status, expanding accessibility of health services, encouraging appropriate utilization of services, and containing the costs of providing services.

The strategic nature of the alliances between public health agencies and managed care plans ultimately hinges upon the strategic objectives and intent of the participating organizations. In many areas, the objectives of public health agencies may sharply differ from those of managed care plans. In general, local public health agencies focus on maintaining and improving health at the community level and emphasize direct provision of services and activities that are not adequately performed by other organizations in the community (Institute of Medicine 1988). Public health agencies therefore often emphasize the provision of personal health services to individuals without private health insurance and the performance of nonclinical, population-based activities, such as environmental monitoring, community health assessment, and community-wide planning and policy development. In contrast, managed care plans often maintain a strategic focus on managing the medical needs of their enrolled subscribers and responding to the demands of employers and other organizations that purchase their services. For-profit plans have the additional imperative of providing returns on investment for shareholders, while nonprofit plans may have instituted programs in community service, medical education, and research.

Where the strategic objectives of public health agencies and managed care plans do not overlap substantially, opportunistic and shared-services alliances may be the predominant forms of collaboration. Stake-

holder alliances may occur where the strategic objectives of public health agencies and managed care plans are sufficiently aligned, as when a plan serves Medicaid beneficiaries or other vulnerable populations that are also served by the public health agency, or when a nonprofit plan's mission of community service is shared by the public health agency. Multivariate analysis of alliances in the 63 jurisdictions we surveyed supports this contention, indicating that nonprofit plans are far more likely than for-profit plans to develop alliances with public health agencies and also that alliances are more likely to develop in jurisdictions characterized by high levels of managed care penetration and consolidation (Halverson, Mays, and Miller 1996). This latter finding suggests that the strategic interests of managed care plans and public health agencies may be more aligned in "mature" managed care markets, where plans are responsible for serving large shares of the total community population.

Functional Models of Interaction

Collaboration between managed care plans and public health agencies occurs in a wide range of functional areas that are related to, but not necessarily determined by, the overall strategic purpose of the collaboration. We observed collaborative efforts operating in one or more of six functional areas: health planning and policy development; outreach and education; data collection and community health assessment; provision of enabling services; provision of clinical services; and case management. Within each of these areas, collaboration may target a wide range of population groups. Coordinated efforts may be restricted to a particular subgroup of a health plan's membership, or they may extend to a community's total population. Selection of the population group to be served by the collaborative effort is intrinsically related to both the strategic and the functional characteristics of the alliance. For example, service alliances in the functional area of outreach and education may target broad segments of the community, as a health plan may view this type of joint venture as a marketing opportunity and a health department may use it for community-wide health education. Alternatively, opportunistic alliances in the functional area of clinical services provision may be restricted to the subpopulation of health plan members who are eligible for Medicaid, since each organization

seeks to gain expertise while focusing narrowly on its own population of interest.

A common functional area of collaboration that we observed was collective *health planning and policy development*. Through a wide range of both formal and informal structures, public health agencies and health plans may act collectively to achieve these objectives:

1. identify major health threats in the community
2. plan jointly sponsored community interventions
3. develop coordinated efforts to inform federal, state, and local officials about health policy issues affecting the community

In several of the communities we studied, for example, public health agencies have gained membership in local associations of managed care plans and have begun to use these forums as opportunities for planning and initiating joint activities like community health assessment projects and proposals for modifying state Medicaid contracts.

Collaborative efforts in *outreach and education* are also common. Many of these efforts seek to impact health status and care-seeking behavior by targeting population segments within the general population; however, some initiatives may seek to change clinical practice by reaching out to physicians and other service providers. Jointly sponsored community health fairs are a common example of this model, wherein managed care plans and public health agencies collectively provide screening services, health education and counseling, and even health-related products like bicycle helmets or smoke detectors. In other communities, public health agencies and managed care plans jointly sponsor initiatives for educating community physicians regarding appropriate practices for tuberculosis diagnosis and treatment, child lead-poisoning screening, or childhood immunization (Halverson, Mays, Miller, et al. 1997).

Additionally, coordinated *data collection and community health assessment* activities are undertaken to share the costs of acquiring and maintaining information on disease incidence and prevalence, service utilization and outcomes, and health-related behaviors and risk factors. Examples of these activities would be agreements between public health agencies and managed care plans to exchange treatment records for managed care enrollees who are treated in health department clinics, to jointly operate a computerized immunization registry, and to jointly fund a survey of the community population for health risks and behaviors.

Three other functional areas of collaboration relate to the delivery and management of personal health services and may entail the *provision of enabling services*, like transportation, child care, and language translation services, that individuals need to obtain full access to the local health care system. These services are more commonly offered by public health agencies than by managed care plans. *Provision of clinical services*, such as preventive and primary health services in home or office-based settings, may also be part of these collaborative arrangements. Both health plans and public health agencies may have clinical areas of expertise that they share through cooperative arrangements. Finally, collaboration may involve the *provision of case management services* in order to ensure the continuity, appropriateness, and cost-effectiveness of health services. Traditionally, managed care plans are more experienced in this functional area, but health departments may claim authority within the public sector or for selected diseases like tuberculosis and sexually transmitted diseases (Centers for Disease Control and Prevention 1995a). A local public health department in Tennessee, for example, provides case management services to the Medicaid enrollees of several managed care plans operating in its jurisdiction, as well as specified clinical and enabling services through its own clinics. In contrast, an agreement between a health department and an HMO in Maryland allows the latter to provide both case management and clinical services for health department clients who are at risk for breast or cervical cancer.

Each of the six functional areas identified above are critical both to managed care plans in their mission of maximizing efficiency and quality in health care delivery and to local public health agencies in their community-wide objectives of health promotion and disease prevention. Because managed care plans and public health agencies are likely to be operating with different levels of knowledge and expertise, interaction and collaboration in these functional areas are truly rational responses.

The functional responsibilities of local health departments clearly extend beyond the six areas identified here, as do those of managed care plans. Public health functions like vector control, water quality, and food safety inspection may prove inefficient, ineffective, or unfeasible to perform through interorganizational alliances with managed care plans. Certain functions like regulation, evaluation, and oversight may require a local governmental presence and preclude private sector involvement. Others call for types of resources and expertise that managed care plans

have no incentive to acquire or provide. Interaction between managed care plans and public health agencies is necessarily limited to functional areas where interests are shared (Zuckerman, Kaluzny, and Ricketts 1995).

Structural Models of Interaction

Diverse structures are used to achieve the various strategic and functional objectives of interorganizational alliances. These objectives strongly affect the structural characteristics of the alliance. Structural characteristics are also likely to be influenced by the nature of the participating organizations and of their leaders, as well as by external factors in the political, economic, and social environment (Zuckerman, Kaluzny, and Ricketts 1995; Halverson, Kaluzny, and Young 1997).

The structures that support collaboration between managed care and public health can be ordered along a continuum that reflects the achieved level of integration between the two types of organizations (figure 1). This approach also describes the structural characteristics of interorganizational alliances in business and industry (Lorange and Roos 1993). At one extreme of the continuum, managed care plans and public health

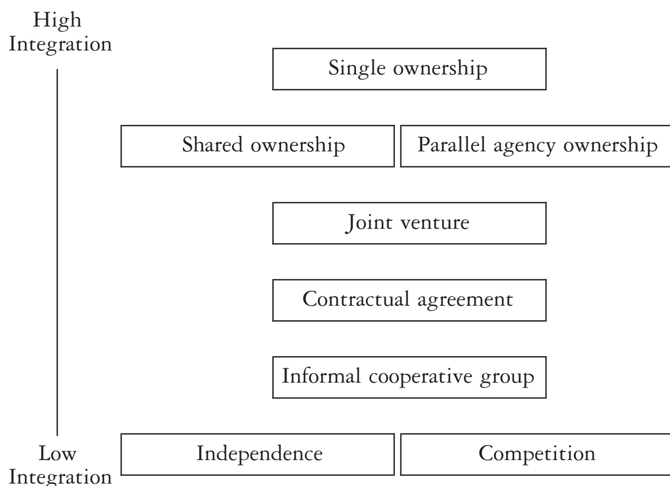

FIG. 1. Structural models of interaction between managed care organizations and public health agencies (adapted from the strategic alliance models identified by Lorange and Roos [1993]).

agencies exist independently and make few, if any, efforts to collaborate or interact. At the other extreme, a managed care plan and a public health agency are integrated to the point that the functions of the two entities are consolidated into a single organizational structure. The structural models of interaction that fall between these extremes complete the range of potential benefits and costs to the participating organizations.

Complete Independence of Managed Care and Public Health. The absence of interaction between managed care plans and public health agencies is the baseline model for our analysis of interorganizational structures because this model is the most prevalent. A survey of local health department directors in 63 diverse cities and counties across the United States finds that less than half of the departments located in jurisdictions served by managed care plans maintain any formal or informal relation with a plan (Halverson, Mays, Miller, et al. 1997). Interviews with the administrators of managed care plans and public health agencies in several of these jurisdictions suggest various inhibiting factors:

1. an internal focus by the health department and/or the managed care leadership
2. lack of congruence between the service area of the managed care plan and that of the health agency
3. differences in the populations served by managed care plans and public health agencies
4. differences in the organizational missions and values of managed care plans and public health agencies
5. lack of visibility as an effective and efficient provider of health services in the community on the part of the public health agency and/or the managed care plan

Such factors may blind public health agencies and managed care plans to the potential value of interaction.

An important distinction within this baseline model relates to the selective nature of health plan interaction. Available evidence suggests that most local health departments do not establish relations with any of the health plans serving their jurisdictions. Other departments, however, establish relations with some local community health plans, but not with others. The factors that lead health departments and managed care plans to engage in selective interaction may differ sharply from

those that result in a complete lack of interaction. Factors motivating an organization to interact with some, but not all, of its potential partners may include the desire to limit the administrative (transaction) costs of interfacing with all organizations; the desire to work only with those organizations that have a certain patient volume, service capacity, area of expertise, or accreditation; and the desire to restrict interaction to organizations that demonstrate a favorable cost structure or a willingness to operate under specific financing arrangements like capitation.

Informal Cooperative Groups. Informal cooperative groups allow managed care plans and public health agencies to interact in a loosely structured environment with comparatively little organizational investment and risk. Membership in these groups includes representatives from local managed care plans and the local health department and may also extend to area hospitals, physicians, and other health care providers. Member organizations share information, technology, and resources, and engage in joint planning and policy development activities. The groups may also provide forums for negotiating more formalized and integrated alliances.

Some cooperative groups, particularly those jointly engaged in planning and developing policy, may conduct regular meetings and establish other communication mechanisms like newsletters. In one Oregon county, for example, a cooperative group comprising the leaders of major managed care plans, hospitals, and the local health department meet monthly to conduct community-wide planning and policy development. This group attends national and regional conferences on topics related to improving community health. Other groups may interact on an ad hoc basis. A public health agency and an HMO in Washington, for example, share medical supplies as the need arises, in addition to interacting in more formalized ways.

Informal cooperative groups allow managed care plans and public health agencies to accrue some of the benefits of collaborative action without sacrificing much of their individual autonomy and control. Typically these structures do not entail large investments of resources, and their impact on community health may therefore be limited. The absence of contracts and binding agreements may make participating organizations reluctant to commit substantial resources to joint efforts and cause them to shy away from difficult, complex, or long-term projects. At the same time, cooperative groups are typically based upon strong

and long-standing personal relations between organizations and their leaders. The familiarity and trust that underscore these relations may not be present among the managed care plans and public health agencies serving many communities. Thus, more formalized relations may be the preferred structures for interaction. Our survey of 63 local health departments uncovered evidence of this phenomenon, as we found that more than three-quarters of existing relations with managed care plans are formalized by contract (Halverson, Mays, Miller, et al., 1996).

Contractual Agreements. As the most common structural model of interaction between managed care plans and public health agencies, contractual agreements are used for a wide range of strategic objectives and functional purposes. Two basic forms of contractual agreements are evident. In the first, managed care plans negotiate a subcontract with public health agencies to provide services to enrollees of the health plan. Health plans then reimburse public health agencies either on a fee-for-service or a capitated basis when these services are delivered. Under some agreements, public health agencies may provide only specified services, such as family planning, sexually transmitted disease treatment, or home health services. In other agreements, the health department may function as an independent practice association by providing all primary care and case management services and by subcontracting with other organizations for inpatient and specialty care. A local health department in Tennessee, for example, holds contracts with four different managed care plans to provide and manage the care of their enrollees who are beneficiaries of the statewide TennCare Medicaid program in exchange for a fixed fee per enrollee (capitation).

The majority of subcontracting activities occurring between managed care plans and public health agencies focus exclusively on Medicaid beneficiaries who are enrolled in the health plans. Although interorganizational arrangements for serving the commercial (employed) enrollees of managed care plans are less common, they do exist. A contract between a large managed care plan and a county health department in Arizona enables the health department to provide tuberculosis treatment and control services to both commercial and Medicaid enrollees. Similarly, a local health department in rural Wisconsin provides home health services to commercial and Medicare enrollees of several managed care plans located in the surrounding urban areas. As many traditional sources of funding for public health services become less certain under

state and federal reform, growing numbers of public health agencies may explore opportunities for revenue support by serving commercially insured populations.

A second form of contractual agreement between managed care plans and public health agencies occurs when a health plan agrees to provide services to health department clients. In this scenario, the health plan assumes the role of service provider and receives capitated reimbursement from the public health agency in exchange for serving the agency's clients. Unlike many of the contracts between public health agencies and other types of providers, contractual agreements with managed care plans often entail intensive case management and utilization review, which may result in the delivery of more efficient and effective care to health department clients. A county health department in Maryland, for example, contracts with an HMO for providing breast and cervical cancer prevention services to low-income, uninsured women over the age of 40.

Joint Ventures. In some communities, health plans and public health agencies move beyond purely contractual relations to establish jointly operated programs and services. Under joint ventures, the managed care plan and the public health agency collaborate in the financing, administration, and delivery of services. These arrangements may be formalized through multiple contracts and agreements or through the formation of a new, jointly owned corporate entity. The health plans and public health agencies that engage in these efforts control and govern the new program or service together, and they also share the associated financial risk and clinical accountability. The shared control and responsibility entailed in these endeavors are the characteristics that distinguish this model most clearly from exchange-based relations operating under the contractual agreement model.

This model is used successfully by a major HMO and a county health department in Washington to jointly fund and operate a health clinic for homeless individuals. The clinic is staffed by health professionals from each organization and is funded with revenues contributed by each organization and with federal funds secured through the organizations forming a consortium and submitting a joint proposal for funding. Clearly, these more integrated alliances may offer the opportunity not only to pool resources but also to gain access to additional resources by using collective expertise and capacity.

Health Plan Operation by Parallel Agency. In the three remaining structural models of interaction, managed care plans and public health agencies are integrated to some degree within a common organizational structure. The first, and least integrated, of these models establishes a managed care plan within an agency of local government that is organizationally parallel to the local public health agency. Although it is not directly owned and operated by the health agency, the health plan is nevertheless controlled by the same governmental entity. This organizational structure typically allows for very close working relations between the two organizations and may entail merger or integration of common operations and responsibilities to avoid duplication. The public health agency may directly provide specified preventive and public health services to the enrolled population of the health plan and/or may monitor and evaluate the adequacy of public health services offered by health plan providers.

This model is successfully operating in a California jurisdiction, where the locally operative public health department and a competitive managed care plan are both arms of the county government. The health plan serves all county employees as well as MediCal (Medicaid) beneficiaries, the county's medically indigent population, and the employees of several commercial businesses. Under this arrangement, the health plan provides most medical services, while the public health department retains the responsibility for certain public health services, such as HIV counseling and testing, communicable disease contact tracing, and the operation of school health clinics. Other public health services continue to be offered by both entities to ensure maximum community coverage, including immunizations, family planning, and sexually transmitted disease treatment. The health department also negotiates memoranda of understanding with the county health plan and other health plans serving MediCal and medically indigent populations in order to set standards for public health services that are provided directly by the health plans.

Shared Operation of Health Plan. Vertical integration of managed care and public health may also occur through partnerships between public health agencies and other health care providers, typically hospitals, which share the ownership and/or administration of a jointly established managed care plan. The shared arrangement brings the acute care capacity of the hospital and the primary and preventive care capacity of the health

department into a single organizational structure that can assume financial risk and clinical accountability for a continuum of health needs within a population. This arrangement also allows the participating organizations to share the financial risks associated with operating the health plan. Shared ownership may also assist in meeting the capital requirements necessary to obtain state and/or federal licensure as an HMO or to achieve accreditation from organizations like the National Committee on Quality Assurance (NCQA).

This structural model is used by a county health department and an academic medical center in Oregon to create a competitive managed care plan that serves Medicaid beneficiaries in a three-county area. Through the shared arrangement, the health department provides primary and preventive health services and case management for all health plan enrollees, while the hospital manages all inpatient and specialty care. Despite its ownership of a competing health plan, the health department maintains contracts to provide specified public health services—for example, communicable disease and family planning services—to the enrollees of other managed care plans. The health department also continues to provide many clinical public health services to the community at large, regardless of enrollment status or ability to obtain reimbursement.

Sole Ownership/Operation of Health Plan. The most integrated structural model of managed care–public health interaction occurs when the managed care plan and the public health agency are wholly contained within one corporate entity. In the structural models discussed up to this point, the managed care plans and public health agencies maintain separate corporate identities alongside their collaborative alliances. The sole ownership model departs from this trend by establishing a true vertically integrated delivery system. Where this model exists, the managed care plan is organizationally integrated, not only with the public health agency, but also with units providing hospital care and ambulatory care. Individuals enrolled in the plan can pass seamlessly from the preventive and public health services offered through the public health unit to the primary and acute care services offered in other settings within the system. At the same time, the public health unit continues to provide both clinical and environmental public health services to members of the community at large who are not enrolled in the health plan. Likewise, the hospital and ambulatory care units within the system do not limit their services to enrolled members. A single organi-

zation assumes financial and clinical responsibility for the full range of health services needed by enrolled members and for the public health services needed by members of the general community. This same organization is also responsible for providing both reimbursable and charity care in the inpatient and ambulatory settings.

This structural model is used by a local public health and hospital corporation in Colorado, which includes within its organization a public health agency, a managed care plan, an acute care hospital, and a network of community health centers. The managed care plan within this system serves both county employees and Medicaid beneficiaries. The hospital and health center components of this system deliver most of the personal health services, allowing the public health agency to focus on community-wide endeavors like education and assessment initiatives, policy development activities, and programs for high-risk population groups like HIV patients. The managers of this system indicate that cost savings generated through the managed care component enable the organization to raise the level of service in nonrevenue areas like inpatient and ambulatory charity care and community-wide public health initiatives.

Policy Implications of Relations between Managed Care and Public Health

Managed care plans and public health agencies are engaging in a wide range of strategic, functional, and structural alliances to capitalize on their common interests and shared environments. Important differences may exist among the various models of interaction with regard to their impact upon community health. Particularly compelling are the ways in which the models affect these factors:

1. how the community is defined and which population groups are targeted for intervention
2. the overall quality and accessibility of health services in the community and how these attributes are monitored
3. the respective roles of public and private organizations and individuals in shaping health resources, policies, and plans within the community

An evaluation and comparison of these models of interaction should examine the potential problems in these critical areas.

Defining the Community and Targeting Interventions

Alliances between managed care plans and public health agencies may focus on population groups that have not traditionally been defined as communities from a public health perspective. Rather than focusing on the entire population of a city or county, for example, alliances may target interventions to specific groups of health plan enrollees or to a "target audience" of potential enrollees that extends beyond local jurisdictional boundaries. By defining the community in terms of actual or potential enrollees, alliances may be left with fewer resources for addressing the health concerns of groups falling outside the selected managed care populations. The directors of several local health departments participating in alliances with Medicaid managed care plans, for example, report that fewer resources are now available for serving uninsured individuals not eligible for Medicaid. Public health agencies may encounter difficulties in maintaining a broad, communitywide focus under some arrangements with managed care plans.

Clearly, policies and strategies are needed to ensure that public health agencies maintain and expand their efforts to address the health needs of groups that fall outside the target populations of managed care plans. Several organizational and financial strategies hold promise for addressing this potential problem: forming community governing boards specifically to provide oversight and governance to these alliances; segregating alliance activities in public health agency divisions that are organizationally and administratively distinct from other agency operations; inserting provisions into contracts that require managed care plans that are engaged in public health alliances to contribute specified levels of funding or resources to community-wide public health practices; and developing public health performance measurement systems at local or state levels to assure that the performance of public health practices in local communities remains adequate for serving vulnerable populations after managed care alliances are developed. A number of validated instruments and methodologies are now available to respond to this last policy option, and many of them are being used in statewide

public health report card initiatives (Miller et al. 1994; Richards et al. 1995; Halverson, Miller, Kaluzny, et al. 1996). These policy options may be used either separately or collectively to ensure that public health agencies maintain a communitywide focus in their alliances with managed care plans.

Assuring Health Care Availability, Accessibility, and Quality

A core function of public health agencies at federal, state, and local levels is to assure the availability, accessibility, and quality of health services in a community (Institute of Medicine 1988). Local public agencies achieve this function through direct provision of services and through cooperative relations with other health care providers in the community. Relations with managed care plans contribute to this function, but they may also detract from it by creating difficulties in maintaining relations with the full spectrum of health care providers in a community. Public health agencies that are allied with a particular managed care plan may encounter resistance in establishing relations with competing health plans or with the physicians, hospitals, and health centers affiliated with them. A county health department in Tennessee, for example, reports a diminished ability to collaborate with the county hospital in areas like patient referral because of its alliance with competing health plans. Resistance may be even greater when the public health agency operates its own competing health plan. A health department in Oregon reports resistance in establishing referral relations with hospitals that are allied with competitors of its own Medicaid HMO. The competitive nature of local managed care markets and the tendency toward closed panel provider networks within these markets may pose problems for public health agencies seeking to participate in them while maintaining strong relations with the full range of health care providers in a community.

The problems that public health agencies may face in maintaining broad-based, community-wide partnerships with health care providers alongside organization-specific alliances with managed care plans are substantial. Public health policy makers and practitioners may reduce such problems by taking these steps: avoiding, wherever possible, exclusive relations in their contracts and agreements with managed care

plans; allowing outside agencies and community groups to review and offer advice on the structure and function of managed care–public health alliances; and structuring alliances within divisions of the public health agencies that are organizationally and administratively distinct from community-wide public health operations. This last policy option may also be achieved by establishing a separate not-for-profit corporation to administer the alliance, especially in cases where organizations may have concerns about the release of proprietary information to public health agencies that maintain relations with their competitors.

Shaping Health Resources, Policies, and Plans within the Community

As local health care markets mature under managed care, successful health plans are acquiring greater numbers of enrollees and larger networks of providers and health care facilities. In this environment, public health agencies face daunting challenges in maintaining positions of influence and leadership regarding local health resources, policies, and plans that may affect community health. These challenges are heightened as health plans begin to assume responsibility for the care of populations traditionally served in the public sector, such as Medicaid beneficiaries. Public health agencies in these communities risk losing their visibility and authority in the community as they surrender their responsibilities in delivering personal health services to private sector providers. This loss of visibility and authority may have severe consequences for the ability of public health agencies to successfully perform population-based activities in health promotion and disease prevention and to significantly influence health-planning and policy development activities for the community.

Several models of interaction may help public health agencies to secure a continued role in shaping the landscape of community health services, policies, and plans. Cooperative planning and policy development groups may allow public health agencies to inform and influence the decisions and actions of managed care plans as they relate to community health. By contrast, contractual arrangements may have either positive or negative effects on the influence of public health agencies, depending on the nature of the contract. Poorly structured contracts may subject public health agencies to the decisions and actions of managed care plans without recourse, whereas more favorable contracts may

explicitly preserve a role for agencies in decision making and oversight. Another policy option beginning to appear in some public health jurisdictions is the establishment of a competitive managed care plan within the local public health agency. In the few jurisdictions where this strategy is pursued, public health agencies report the ability to maintain and expand their influence and leadership among health care providers and the public in general. "Leading by example" is the approach taken by these agencies.

The need to maintain visibility and influence in the community should not be public health agencies' primary policy justification to continue or expand their role in medical services delivery. Public health leadership can be maintained and expanded in the presence of alliances that transfer responsibility for public health services to managed care plans and other private providers. The contracts and agreements supporting managed care–public health alliances must be structured so that responsibility for direct service provision is exchanged for heightened public health agency roles in governance, management, oversight, and evaluation of the alliances. These types of arrangements may allow public health agencies to maintain their visibility and influence in the community while realizing improvements in the effectiveness and efficiency of public health practice through collaboration with managed care plans.

Driving Forces for Alliances between Managed Care and Public Health

Where is the common ground between managed care and public health? The health promotion and disease prevention objectives that have long been the hallmark of public health agencies are becoming increasingly important to managed care plans seeking long-term cost savings through healthier enrolled populations (Centers for Disease Control and Prevention 1995b). Some of the older, nonprofit HMOs demonstrate a long history of emphasis on prevention and community wellness (Thompson et al. 1995; Nudelman and Andrews 1996). However, many of the newer, and largely for-profit, managed care plans have only recently begun to emphasize these areas (Hasan 1996; Hurley 1997), in response to such pressures as consumer and purchaser demands for quality, NCQA accreditation standards, and consolidation in local health care markets, which is allowing plans to assume responsibility and risk for a growing proportion of a community's total population. Data from our survey of

63 public health jurisdictions seem to reflect this trend, indicating that for-profit managed care plans are significantly less likely to engage in alliances with public health agencies, compared with nonprofit plans, after controlling for other factors (Halverson, Mays, and Miller 1996).

A common need for population-based data on health status, disease incidence, and risk factor prevalence may also motivate alliances between public health agencies and managed care plans. Public health agencies face an urgent need for these types of data in order to respond to new and resurgent public health threats and increasing demands for accountability from policy makers and tax payers. Managed care plans desire this population-based information as they go about expanding their presence in health care markets in order to anticipate health service needs and demands within current and potential enrolled groups. Data-sharing agreements and joint surveillance efforts may allow public health agencies and managed care plans to pursue their individual and collective interests in population-based information more efficiently and effectively.

Additionally, many local health departments have both the expertise and the infrastructure necessary to provide preventive and primary health care services to vulnerable population groups like Medicaid beneficiaries. Managed care plans may seek to expand their market penetration by contracting to serve the beneficiaries of Medicaid managed care programs, which are now operational in 41 states. As a result, managed care plans—especially those with little or no experience in serving the often complex needs of vulnerable populations—face compelling reasons to establish cooperative relations with public health agencies.

Finally, local health departments in many areas of the nation are facing uncertainty regarding the availability of public funds to sustain many of the population-based and personal health services they provide (Gerzoff, Gordon, and Richards 1996; Miller et al. 1993). Federal Medicaid-waiver programs operating in many areas of the country are forcing local health departments to compete with managed care plans that enroll Medicaid beneficiaries, or to negotiate subcontracting arrangements with these plans, if they are to maintain fee-based revenues generated by serving these beneficiaries (Koeze 1994). Additionally, many local and state governments are confronting budgetary difficulties, which may constrain their financial contributions to local public health activities. Limited governmental appropriations threaten to force local health departments to be even more financially dependent upon fee-generating activities like clinical services provision and environmental permitting at the expense of population-based activities like health

promotion, health assessment, and surveillance (Allen 1993; Larry 1993; Koeze 1994). Public health agencies urgently need to forge partnerships with other community organizations to sustain and expand health promotion and disease prevention efforts even in the face of funding uncertainties (Baker et al. 1994). The growing presence of managed care plans in local communities—and their connections with large numbers of enrollees and affiliated health care providers—make these organizations ideal partners for community health improvement initiatives.

Conclusions

Collaboration between managed care plans and public health agencies is a natural product of the health promotion and disease prevention objectives shared by both types of organizations. Strong and enduring relations between these organizations may be a critical step in establishing broadly defined community health partnerships that have been characterized as essential elements of health system reform and improvement (Baker et al. 1994; Fielding and Halfon 1994). Indeed, alliances between public health agencies and managed care plans create links not only between the two parent organizations, but also among the network of physicians, hospitals, and clinics that are affiliated with health plans and the collection of governmental and private organizations that are allied with public health agencies.

Clearly, important differences exist among the types of relations that are possible between managed care plans and local public health agencies and among the outcomes that may reasonably be expected from these efforts. Nevertheless, the continued growth of managed care and the continued vulnerability of the nation's local public health systems create unique and compelling opportunities for exploring the boundaries of collaboration. Although there is much yet to be learned, collaborative alliances between managed care and public health hold clear potential for improving health system performance in an environment where health care costs, quality, and accessibility are of profound importance.

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Address correspondence to: Paul K. Halverson, DrPH, Assistant Professor, Department of Health Policy and Administration and Center for Public Health Practice, School of Public Health, University of North Carolina at Chapel Hill. Campus Box 7400, Chapel Hill, NC 27599-7400 (e-mail: paul_halverson@bdunc.edu).

Appendix: Research Methodology

This information is drawn from a two-stage research effort designed to examine the impact of managed care on local public health delivery systems. During the first stage (June to August 1994), the directors of 63 local health departments across the United States were surveyed by telephone about the extent of their interaction with managed care plans and other organized health care providers like hospitals and community health centers (Halverson, Mays, Miller, et al. 1996). These agencies represent a nonrandom selection of organizations in 15 states that had participated in a prior study of organizational structure and performance (Miller et al. 1994; Halverson, Miller, Kaluzny, et al. 1996). Although not statistically representative of all U.S. health departments, these agencies nevertheless are markedly diverse in their size, type of jurisdiction (city, county, or multicounty), region, urbanization, and sociodemographic characteristics of the populations served.

In the second stage of the study (December 1994 to June 1995), detailed case studies were conducted in seven of the original 63 jurisdictions. These case study jurisdictions were selected to achieve diversity in the extent and nature of interaction among public health agencies, managed care plans, and other organized health care providers, and were located in Colorado, Oregon, Tennessee, Washington (2), and Wisconsin (2). Jurisdictions included urban as well as rural areas, and they represented city, county, and multi-county districts. In-person structured interviews were conducted with the administrators of managed care plans (N=32) and hospitals (N=28) operating in these seven jurisdictions, and with the director and senior staff at each local health department. Of the managed care plans interviewed, 59 percent were organized as for-profit corporations, 21 percent were group- or staff-model HMOs, and 12 percent did not maintain a corporate office in the public health jurisdiction under study. The managed care plans studied had been in operation for 11 years on average, with a range of less than one to more than 50 years.