10.1 A Model for Population Health Management

While population health management approaches have been developed in many settings, most share similar characteristics that can be described in a model for population health management. Fundamentally, the population health management approach to providing services is structured, whereby some type of influencing entity attempts to act upon a target population, as illustrated in Figure 10.1-1. The influencing entity, whether payer or provider, has an interest in helping the target population of individuals make appropriate choices and decisions about their health and medical care to reduce unnecessary medical expenses and keep healthy. Population health management strategies—specifically lifestyle, demand, disease, catastrophic care, and disability management—provide the means by which influencing entities attempt to change the behavior of their targets.

This influence model draws heavily from behavior change theories as population health management strategies try to help individual targets make better decisions about their health behaviors and utilization of medical care services. Integration theory is also applicable because of the importance of coordination of care and services among involved entities and target individuals. Finally, organizational change theories are important because of the organizational implications that adopting a population health management approach has for changing the behavior of influencing entities.

In this population health management model, influencing entities can be either payers or providers. Payers such as employers, health plans, other insurers, federal or state governments, or any entity at risk for medical care costs for a defined population of individuals are considered influencing entities because of their interest in protecting and promoting the health of this population. Similarly, both individual and institutional providers such as physicians, hospitals, and clinics are considered influencing entities because of their concern and financial risk for the cost of medical care. Even when financial risk is not assumed by providers or provider entities, their professional and institutional commitments to improve health and care delivery permit their categorization as influencing entities. These influencing entities provide the perspective for the population health management programs that frames program design and defines desired program outcomes.

Target populations are those individuals included in the population defined for service. These groups may include people with labels, including employees, patients, members, beneficiaries, citizens, or consumers. Furthermore, for individuals unable to make their own medical decisions, such as children or those deemed incompetent, patient surrogates may be identified as the actual targets of population health management interventions. Using this classification scheme, uninsured and underinsured individuals are also included as intervention target populations because, as citizens, their medical care expenditures are ultimately the responsibility of some type of payer or provider entity that would like to influence and optimize health and medical care for those individuals.

Population health management approaches provide the tools and personnel for influencing entities to affect their target populations of individual consumers. As tools, population health management strategies teach target individuals and groups how to care for themselves and how to appropriately access the medical care system. Program personnel, including physicians, nurses, educators, telephone counselors, and other care managers, deliver population health management services on an individual or group basis for members of the target populations. Using techniques derived from behavior change theories, these
professionals attempt to persuade individuals to make choices to improve their health and optimize their use of medical care services. Additional personnel responsible for designing, implementing, and overseeing population health management programs provide necessary infrastructure and organizational commitment to facilitate the delivery of appropriate and coordinated health and care management services. Theories of integration and organizational change support the modification of organizational operations, strategy, and culture required by the adoption of a population health management approach.

Underlying this model of population health management is a common set of care goals that these approaches share: that provision of health and care management be individualized, appropriate, and coordinated for defined populations. Providing care and health behavioral support for individuals is by its very nature individual- or patient-focused. The tension between focusing on defined populations versus the individuals within those populations is resolved in the practice of population health management. While target populations are segmented as groups, health and care management services are delivered to individual people. Maintaining a program focus on individuals as well as target populations can help population health management programs achieve their health improvement and patient care goals and provide services that are appropriate for the target individual. Coordination becomes important when appropriate, patient-focused services are delivered by multiple providers in multiple care sites. Given that there is overlap among many health management approaches, coordination is especially critical. Program personnel must be cognizant of the opportunities and limitations of the different strategies in practice and work to reduce duplication while best meeting the needs of their target populations of individuals. In practice, integration of population health management activities within either a single influencing entity or across multiple entities requires the use of sophisticated information technologies and the participation of knowledgeable program personnel. Institutionalizing the care goals of health management as organizational values cultivates organizational support for this conceptual model and encourages resource allocation to support health and care management activities. By promoting the organizational changes necessary to incorporate the goals and philosophies of a population health management model into the strategies and cultures of the influencing entities, it is possible to create organizational environments truly focused on health and wellness.


10.2 Medicare Coordinated Care Demonstration Program

From the perspective of the Federal government, integrated population health management holds definite promise. Focused on the defined population of seniors age 65 and over, the Medicare Coordinated Care Demonstration program has been developed to study whether paying for combined case management and disease management services is cost effective. Fifteen demonstration projects have been selected to evaluate whether models of coordinated care are effective at improving clinical outcomes, increasing satisfaction, improving quality of life, and increasing appropriate use of Medicare-covered services. A study by Mathematica Policy Research concluded that there is seemingly no single best way
to approach care coordination. Instead, care coordination interventions can vary in scope, mix and intensity and still produce favorable outcomes (“HCFA” 2001).

Demonstration projects will be paid an all-inclusive monthly rate for coordinated care services such as home health visits to devise individualized care plans, education programs, and assistance with social services, medication compliance interventions, and enhanced communication with physicians. Interventions will include strategies in disease management, demand management, and lifestyle management as part of the overall program. A formal evaluation is under way to assess clinical outcomes, beneficiary satisfaction, provider satisfaction, cost-effectiveness, and other measures of quality and outcome. Medicare expects costs from the program to be the same or lower, and predicts that program efficiencies will more than offset program expenses for service enhancements (“HCFA” 2001).


10.3 Total Health Management

One program model that is attractive to risk-bearing entities is an approach called total health management. As described by Roberta Suber (1999), “the goal of total health management is to prevent chronic disease and disability, to delay functional decline and to avoid adverse medical events and their associated costs.” By emphasizing health promotion, preventive medicine, healthy lifestyles, ongoing screening and monitoring of patients, and proactive management of acute and chronic care, the concept of total health management strives to address health and care needs across the continuum of care (Suber 2001).

A comprehensive Total Health Management approach has been developed by the consulting organization, Deloitte & Touche, as a “population-based approach to managing healthcare risk, access, and care” (Maher and Lutz 1997). This model segments the population into four defined groups and then targets intervention strategies for those four population categories:
1. health maintenance;
2. ambulatory care;
3. chronic conditions and disease management; and
4. traumatic/catastrophic incident management.

Analyzing a wide range of data, including incidence and frequency distributions for diseases, per member per month costs, overall utilization patterns, inpatient stays, physician office visits, emergency department visits, procedures, and outpatient encounters, a population is assessed to identify opportunities for care management (Maher and Lutz 1997). This model program was developed by Deloitte & Touche in response to reports that 96 percent of MCOs and 91 percent of providers intended to increase attention to care management programs in the near future (Grinnell 1997). By integrating aspects of lifestyle management, demand management, disease management, and catastrophic care management strategies, the total health management approach strives to improve health and reduce costs from the perspectives of both providers and insurers.

