From Volume- to Value-Based Care: *Leading Population Health Initiatives*

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The evolution of traditional health care delivery from volume based to value centric has elevated population health to a level that has captured the attention of health care leaders. It is the term *population health* that stymies clinicians, academicians, policy makers, and consumers. They all struggle with a clear meaning or specific definition of the term. Further, those charged to deliver a program in their particular setting are uncertain of what population health is. Varyingly described, population health has many faces, including the health of populations, the distribution of health outcomes, and factors that influence the health of populations over a lifetime.

In an effort to bring more clarity to the concept of population health, the authors collaborated on and conducted a pre-conference session at the 2016 American Organization of Nurse Executives Annual (AONE) Annual Meeting. The objectives of the presentation were to articulate a clear definition of population health, introduce the value of analytics as actionable information, and demonstrate the significance of collaborative partnerships in executing programs. Further, the pre-conference included the work of the AONE Task Force, titled Preparing Nurse Executives to Lead Population Health Initiatives, which included competencies in this arena for chief nurse executives.

Understanding and being fluent regarding population health is essential for the nurse executive, who is in a unique position to lead initiatives, create and execute programs, and promote the necessary collaborative environment. Armed with the knowledge to lead population health, the nurse executive serves as an invaluable resource to the health care team.

POPULATION HEALTH: WHAT REALLY MATTERS

Population health has emerged as a response to the twin challenges of high health care costs and poor outcomes. It is a recognition that merely changing how we deliver care will not drive down demand for health care and bend the cost curve. Instead, we need a more comprehensive approach to health that does more than put a bandage on the wound. Providers must seek ways to prevent disease and injury and ensure that people live in communities which support and encourage wellness.

The word *population* has 2 definitions.[1] The first sees populations as groups of individuals sharing common characteristics. This could be patients with asthma or obese patients with high HgA1C levels at risk for developing full-blown diabetes. From the health system perspective, identifying and managing these populations—or more accurately, subpopulations—will result in better outcomes for patients already known to the clinical team.

Population can also be defined as individuals occupying a common geographic area. This population can be quite diverse, but all are exposed to the same physical and social environment. Members of this population may or may not be attributed to a particular medical practice or health system, or may have no regular source of care. They could be healthy or at imminent risk of serious disease. This second definition is most inclusive and represents both the challenge and opportunity of population health: to address all the factors that determine an individual's state of health.

Although estimates vary, the influence of medical care on actual health outcomes is put somewhere between 10% and 20%.[2,3] Other factors, such as health behaviors, socioeconomic status, physical environment, and genetics, in the aggregate, have a much greater impact than the care one receives (*Figure 1*). Despite the relatively low efficacy of medical care in improving overall health and extending life expectancy, 88% of all health-related spending goes to its delivery. The Institute for Healthcare Improvement developed a model to better describe the causal relationship among the various factors that can be influenced by social spending and health outcomes (*Figure 2*).[4] An effective population health program invests in efforts to address these "upstream" factors to ultimately improve health outcomes.

The United States pays a price for lagging behind its peers in addressing socioeconomic determinants of health. The nation is number one in international rankings of healthcare per capita health care spending, but is ranked far below peer nations on health system performance.[5,6] Conversely, the nation is rather parsimonious when it comes to social spending—public services such as family support, housing, and unemployment. This may account for the nation's poor health outcomes, because countries that spend more on social services have healthier people.[7] Thus, it appears that Americans are willing to spend more on health care, but less willing to pay for services that may prevent illness and reduce demand.

Although the nation's investment in social services is found wanting, changing models of health care reimbursement are incentivizing health systems to address these broader determinants of health. As we move away from paying a fee for every service rendered to global payments and capitation, hospital profit centers such as operating rooms and inpatient services are becoming cost centers. Unnecessary use hurts the bottom line. Population health is a systematic approach to understanding why people get sick and what can be done to prevent and mitigate disease, thus reducing demand for treatment and its associated costs.

DATA AND DATA ANALYTICS – ITS VALUE IN POPULATION HEALTH

Data and data analytics are critical to effectively managing populations. Data creates transparency to help understand how to optimize networks and services to match the needs or risks of the population you are serving. True population health management has a broad focus identifying how to best support improving health outcomes, paying attention to health factors and policies and programs that impact the physical environment (air and water quality, housing and transit), social and economic factors (education, employment, income, family and social support, community safety), clinical care (access and quality of care) and health behaviors (tobacco use, diet and exercise, alcohol and drug use).[8]

To truly optimize population health management, accessing and analyzing data in all of these areas is important. The challenge is that data are not always available or are difficult to acquire. It is unfortunate that obtaining data related to key health determinants is the most challenging especially because health behaviors, social and economic factors, and physical environment account for approximately 80% of what determines health.[8] It will be essential for providers and communities work together to close this gap.

A good starting place is to complete a risk stratification analysis. Data have shown that 1% of patients account for 20% of health care costs and that 5% of patients account for 50% of health care costs.[9] It is imperative to identify these high risk individuals in an effort to target interventions as appropriate. Even more important is using analytics to