

# practicing public health in a managed care setting

**D**id you ever stop to consider what is meant by the term “public” in public health? Any modern definition of public health must include a greater appreciation for the importance that populations play in determining the health of the public. Population groups are variable and include characteristics such as geography, race and ethnicity, income, age, disease and clinical conditions, and insurance status.

UnitedHealth Group, a Minnesota-based national health and well being company, facilitates the provision of a variety of health care services to more than 35 million people. We believe that an important element in the delivery of quality health care includes understanding the dynamic relationship between individual health status and the population groups from which the individual arises. It has become very clear that the etiology of much of the disease burden in our nation results from, and is exacerbated by, the health-related behaviors of people and the environment in which they live. It is also clear that the prevention of disease, cost effective and precise diagnostic decision making, and effective comprehensive therapeutic interventions, are all significantly enhanced by sophistication in connecting the health of the individual to relevant realities of their population groups. This means asking compelling questions and looking for comprehensive answers. These questions involve issues such as: how local social pressures affect an individual’s inclinations toward healthy living; the special genetic concerns that result from shared biology; the effect of age on medical and non-medical health-related decisions; and the community-wide environmental conditions that may comprise the root of a syndrome. The challenge and opportunity before all participants in health and medical care delivery is to maximize the interplay between individual health and public/population health to improve the efficiency and effectiveness of health interventions.

One of the challenges faced by today’s public health practitioner is to gather data about a given population that supports actionable and effective intervention. This challenge is somewhat reduced when a practitioner works with a robust database of defined populations of subscribers or enrollees.



Reed V. Tuckson, MD



By Reed  
Tuckson, MD,  
Senior Vice-  
President of  
Consumer  
Health and  
Medical Care  
Advancement,  
UnitedHealth  
Group



When we evaluate information in a database, we learn about the health characteristics and behaviors of groups of people as well as that of individuals. Aggregated information can be used proactively to identify individuals who are at special risk for poor outcomes and to target them for appropriate intervention. This process of gathering and analyzing population-based data to identify at risk and medically needy individuals is often referred to as “predictive modeling.” By using mathematical algorithms, statisticians can now process large amounts of data to make predictions, decisions, and develop models and guidelines for interventions to apply to groups and individuals. This shift to a more population-based focus results not only in better health for individuals but in better health for communities. In addition, this shift leads to greater efficiency and cost effectiveness in health care delivery.

None of this is possible, of course, without a significant investment in computer systems and data software. In addition, effective intervention requires a team of professionals who are trained to make sense of the data and then interact with the people who have been identified as “in need.” Public health informatics — information technology applied to the field of health care — is a critical element of our data assessment and is becoming more important each day.

A practical example of how this works comes from patients who have been diagnosed with both breast cancer and depression. Data analysis of a large number of such patients indicates a significant likelihood that they will not comply with their therapeutic regimen. Often, different members of a health care delivery team focus on only one diagnosis and may be unaware that the patient suffers from more than one disorder. The ability to use population-based data and analysis to predict that patients with breast cancer and depression are a population at risk avoids the fragmented approach that often exists in health care today and provides an opportunity to achieve better health care outcomes.

Population-based medicine is a bridge that connects the traditional public health system with today’s comprehensive health and medical care management systems. Understanding behavioral and other social/environmental determinants of health provides opportunities to promote health, prevent disease and diagnose diseases more effectively. Sophisticated analysis of population-based data leads to anticipating therapeutic problems and influences medical care management.

---

Finally, population-based health care data facilitates coordination of care, fills gaps in health services delivery, and helps connect patients to necessary community-based resources. As a physician and a health care executive, I have believed, for years, that the partnership between the medical care system and the public health system is a natural one. If we embrace such a partnership, we can demonstrably enhance quality of life, improve the efficiency of health care delivery, and save lives every day.

*Reed V. Tuckson, MD, is currently senior vice-president of Consumer Health and Medical Care Advancement, UnitedHealth Group, where he works with business groups to create new health care systems, enhance patient-physician relationships, improve medical care quality and assist individuals in optimizing their health. Prior to joining UnitedHealth Group, Dr. Tuckson served as senior vice-president, Professional Standards, for the American Medical Association. The former president of the Charles R. Drew University of Medicine and Science in Los Angeles from 1991 to 1997, Dr. Tuckson also served as senior vice-president for programs of the March of Dimes Birth Defects Foundation from 1990 to 1991. He was the commissioner of public health for the District of Columbia from 1986 to 1990.*

*Dr. Tuckson currently is a member of several health care-related and academic organizations, including the Institute of Medicine of the National Academy of Sciences. In addition, he currently serves as a member of the Secretary of Health's Advisory Committee on Genetic Testing and has held a number of other federal appointments, including seats on cabinet-level advisory committees on health reform, infant mortality, children's health, violence and radiation testing.*

*A graduate of Howard University and the Georgetown University School of Medicine, Dr. Tuckson trained as an intern, resident and fellow in General Internal Medicine at the Hospital of the University of Pennsylvania. A Robert Wood Johnson Clinical Scholar of the University of Pennsylvania, he also studied Health Care Administration and Policy at the Wharton School of Business and was active in ambulatory, student health, prevention and geriatric clinical care settings.*