

The Contemporary Health Insurance Company: Shaping Public Health in the 21st Century

Sachin H. Jain, Lisa Latts, MD, MSPH, MBA, and Samuel Nussbaum, MD

Public health is ultimately focused on the health of populations, rather than the health of individuals. In its seminal 1988 report on the future of American public health, the Institute of Medicine defines the mission of public health as “fulfilling society’s interest in assuring conditions in which people can be healthy.”¹ Public health agencies are typically charged with 1) monitoring the health of populations, 2) health promotion and disease prevention, 3) responding to epidemics, and 4) monitoring and improving the quality of our health care delivery system. Accomplishing these critical functions on a comprehensive basis has been a challenge for the under-resourced public health system. As our health care system evolves, other entities have begun to step in to fill the void. Examples of those entities include community health centers,

private agencies and foundations, and, increasingly, health insurance companies.

In the past few decades, the health insurance industry has undergone a dramatic transformation. The insurance company is moving beyond its traditional role as a payment intermediary and is evolving into a critical piece of the U.S. public health infrastructure. Today’s health insurer works closely with its members and physicians to improve the quality of care that is delivered, supports evidence-based medicine and improves health outcomes. The health insurance company now performs drug surveillance, provides disease management and encourages disease prevention. Increasingly, health insurance companies promote improved health care quality through financial payment mechanisms that reward clinical performance.

.....

Sachin H. Jain is a fellow in Programs in Clinical Excellence at WellPoint, Inc., and an MD/MBA candidate at Harvard Medical School and Harvard Business School. Jain is also co-founder and chair of the Harvard/Commonwealth Health Policy Education Initiative. Lisa Latts, MD, MSPH, MBA, is Vice President for Programs in Clinical Excellence for WellPoint, Inc. Dr. Latts is an internist and practices as a sub-specialist in medical complications of pregnancy at the University Hospital in Denver. Samuel Nussbaum, MD, is Executive Vice President and Chief Medical Officer for WellPoint, Inc. Dr. Nussbaum is a professor of clinical medicine at Washington University School of Medicine and serves as adjunct professor at the Olin School of Business, Washington University.

WellPoint Inc., currently the nation's largest health benefits company, has more than 34 million members across the United States, including Blue Cross or Blue Cross and Blue Shield-licensed plans in 14 states. In this paper, we describe the evolution of the health insurance industry and use WellPoint as an example to demonstrate the increasing role that health insurers play in improving public health.

Evolution of the Health Insurance Industry

The health insurance industry was born in the post-World War II era. While health insurance was sold prior to World War II, the wage freezes required during the war led employers to begin offering health benefits to workers as an alternative to higher wages. The benefit design of the first group health insurance plans was similar to that of other kinds of insurance; insurance companies operated under the notion of indemnity, reimbursing health plan members for a fixed percentage share of expenses incurred.²

Payment by insurance companies to providers was on a fee-for-service basis. The more services a physician provided, the higher their reimbursement. Services that were more intensive, such as procedures, were reimbursed at a higher level than patient counseling or other activities that primarily encouraged health and wellness. Supported by Medicare, the national Association of Blue Cross and Blue Shield Plans, and a number of small local health plans, this model persisted throughout the 1970s and 1980s. As health care expenditures grew, the reimbursement models

led to a "sick care" system, paying for the health needs of the ill, treating illness rather than rewarding prevention. The system did little to promote health or to organize an increasingly complex and fragmented health care system. New technologies and pharmaceuticals and the proliferation of medical specialties improved care for individuals but drove costs to new heights. Employers, the predominant purchasers of health insurance, began demanding new, more efficient models of care.

From these demands grew the managed care movement and the development and growth of Health Maintenance Organizations (HMOs). HMOs were already available in some markets in the 1960s and 1970s, but they did not become widespread until the 1990s. Managed care had two basic premises: 1) properly defined benefits promote service utilization that prevents disease, promotes wellness and pays for necessary care for individuals with illness while reducing health care expenditures, and 2) physicians reimbursed on a capitated basis are more likely to focus on providing only necessary health services.³

The results of this transformation were mixed – while there was good evidence that managed care reduced medical cost inflation, there was a concomitant backlash from consumers and providers, particularly physicians. Consumers, used to a system in which most services were provided without oversight, became frustrated by barriers to what they believed was necessary care. Consumers and physicians viewed the health insurance company as interfering with their traditional relationship. Patients viewed limited HMO providers networks as restricting their choices, and physicians resented the administrative

burden imposed by the prior authorization requirements.⁴

While managed care negatively affected the public's perception of the insurance industry, it set the stage for the insurance company to play a central role in coordinating care, preventing disease and promoting wellness. On the heels of managed care transformation, the insurance industry became increasingly aware that payment for care often defined the structure of care: the services the industry chose to compensate and the methods of compensation played a critical role in determining which services were provided more often and, therefore, in the health of its populations. It became even more clear that it was less expensive to keep patients healthy than to treat them when they became sick. Insurance companies began to build programs and initiatives for disease prevention and health promotion. They implemented pharmacy management programs and assessments of new technologies to lead to more evidence-based use of interventions driven by quality and cost management. These types of initiatives, part of a strategy to manage health care costs by creating healthier members, began the expansion of health insurers into areas that were traditionally thought to be "public health."

The opportunity for health insurers to affect the health of populations arises from their reach and scale and from their relationships with their provider networks and members. The Centers for Medicare and Medicaid Services (CMS) fund about half of the health care delivered in the United States; private health insurance companies, dominated by several large companies, provide health insurance to the commercial population. WellPoint, United Healthcare,

Aetna and CIGNA provide services to approximately 80 million members. Blue Cross and Blue Shield health plans provide health care benefits to more than 94 million members. The enormity of this scale has led insurance companies to engage in strategic investments and partnerships that improve the health of its members and consequently the public health.

Health Promotion and Monitoring

Historically, health promotion has been a function of government-run public health agencies (i.e. city, county and state Departments of Health and the Centers for Disease Control and Prevention). With the proliferation of unscreened health information on the Internet and the pharmaceutical industry's expanding use of television and print advertising, there is a public need for reputable, high-quality health information. Health insurance companies have invested heavily in comprehensive Internet sites designed to disseminate information to plan beneficiaries and providers. Much of the information is general medical information, licensed from an independent, reputable third party, but encouraging members to use the Internet for medical information also allows for the dissemination of plan-specific information, such as information on benefits, claims adjudication, plan administration, and, most recently, claims-based medical records.

While insurance companies provide general information about health and wellness to large populations, by virtue of their access to historical claims data, they

are able to provide specific information that anticipates the needs of individual patients. An insurance plan can deliver age- and condition-appropriate health and prevention information. The health insurance company can send specific reminders to the patient's primary care physician to administer condition- and age-appropriate screening tests. Claims information can be used to determine whether a particular test or intervention has been administered and can serve as the basis for a system of public health monitoring and health information reminders. Furthermore, this information can guide members and physicians to therapies and interventions that support optimal clinical care based on clinical guidelines established by medical policy organizations and medical professional societies. A health plan can identify for physicians their population of individuals with chronic diseases and the recommended tests that these individuals have or have not received. In this era when electronic medical records and disease registries are not yet widely utilized, this can be extremely valuable in improving the quality of care delivered.

Because insurance companies can organize data from a fragmented provider community, the insurance company can serve as a key repository of patient-level information. This patient-level data can be used to extrapolate information about the health of whole communities. While insurance companies have yet to comprehensively collaborate with government to this end, pilot project are in place. The Ambulatory Care Quality Alliance (AQA) is currently sponsoring partnerships between health plans and the CMS in six locations that will, for the first time, combine public and

private information to measure and report on physician practice in a meaningful and transparent way for consumers and purchasers of health care.⁵ WellPoint has used the available data to develop a "Member Health Index" (MHI) and a "State Health Index" (SHI) to track both the health of the members of WellPoint's health plans and the overall health of the populations in the states in which it operates. WellPoint aspires to track both the MHI and SHI and to develop and implement initiatives to accomplish its mission: to improve the lives of its members and the health of the communities it serves. WellPoint has also replicated the work on local area variation completed by Wennberg, Fisher and others through the Dartmouth Atlas Project⁶ to demonstrate local area variation in care—a means of uncovering disparities in care and defects in health care quality. Activities can then be developed to target inappropriate variation.

In a health care industry increasingly driven by pharmaceuticals, insurance companies can also track incidence of post-marketing pharmaceutical safety and effectiveness. Using its claims data, WellPoint was able to complete an extensive analysis that was submitted to the Food and Drug Administration regarding the incidence of cardiovascular disease in patients using Cox-II inhibitors. The monitoring of membership for adverse events can provide early warning of potential issues with new pharmaceutical agents. These types of analyses can provide regulatory agencies with added information when making important decisions about drugs that affect large populations.

Epidemiology and Disease Management

Public health agencies are charged with organizing a system-wide response to epidemics and outbreaks of disease. Historically, these epidemics have been infectious in nature. As vaccinations have limited the spread of infectious disease and as life expectancies have been extended, the burden of disease has shifted to chronic diseases or emerging epidemics, such as obesity, which serve as a prelude to chronic illness. While yesterday's epidemics were influenza, tuberculosis, and small pox, today's are diabetes, asthma, congestive heart failure and cancer. For these diseases, insurance companies are increasingly playing a central coordination role by providing disease management services. They collect and organize important data and connect patients with critical information and knowledge to be personally engaged in caring for their illness and critical resources to better access the health care system.

Disease management is based on the premise that complex chronic diseases have multiple care elements that must be addressed to minimize disease morbidity and mortality. These elements are typically not managed optimally by an acute-care model, the organizing principle of the American health care delivery system. Almost 50% of patients do not receive care consistent with clinical evidence or access to non-physician resources that can critically improve health.⁷ The poorly coordinated management of disease leads to unnecessary morbidity and mortality and results in increased expenditures, particularly hospitalizations. Disease manage-

ment provides for a comprehensive approach to care, which includes thorough member education and empowerment, monitoring of medication compliance, frequent contacts with a nurse case manager and coordination of interactions with the health care system. Effective disease management decreases hospitalizations and engages the patient, whose knowledge of his or her condition is critical to improving overall health.

Functionally, disease management takes multiple forms, targeting tools and services to both providers and patients. The services range from simple interventions, such as distributing well-articulated care guidelines, to providing a health coach to improve the patients' daily monitoring of their health. Patients find value in the additional access to concerned health professionals. Health plans find value in the improved health of its members with chronic disease, leading to decreased hospitalizations and emergency department visits, as well as increased appropriate physician visits and pharmaceutical use. There is heightened industry awareness and a growing body of compelling clinical studies showing the effectiveness of disease management in improving the care of chronic disease. Consequently, the number of health plans offering disease management programs rose from 41% in 2002 to 53% in 2003.⁸ This study, commissioned by Mercer, suggests that disease management programs are being used successfully to lower increases in health care expenditures. Health Management Corporation, a Well-Point subsidiary, has demonstrated a \$1.45 gross savings per member per month for disease management programs spanning asthma, diabetes and coronary artery dis-

ease.⁹

As Americans age and as the burden of chronic disease worsens, health insurance companies and disease management organizations will play a vital role in responding to the epidemic of chronic illness.

Measuring and Improving Health Care Quality

A core function of public health entities has been monitoring and improving health care quality. This function was primarily driven through certification and inspection of health care facilities and maintenance of state physician licensure. Aided by the publication of the Institute of Medicine's (IOM) 2001 Report, *Crossing the Quality Chasm*, there has been recognition of quality gaps in the US health care delivery system.¹⁰ Influential organizations, such as the National Committee for Quality Assurance (NCQA), have identified key measures for both preventive health and clinical effectiveness for chronic illnesses, and insurers have played a key role in shaping improvement of clinical health care quality. Responding to a key recommendation in the IOM report, health insurers have begun instituting incentives to improve clinical quality, recognizing again that the way care is compensated ultimately shapes the nature and quality of the care that is provided. These "pay-for-performance" programs financially reward physicians and hospitals for care that is consistent with evidence-based clinical guidelines and leads to better clinical outcomes.

WellPoint has made identifying and rewarding high quality care a priority. WellPoint's strategy is driven by two fun-

damental and complementary beliefs or axioms. First, by identifying higher quality providers, the company can guide patients to better care. An example is the designation of centers of excellence—facilities that deliver comprehensive care for bariatric surgery, cardiac services and transplantation. When a WellPoint patient needs any of these services, he or she is directed to a facility with the best clinical outcomes, and often the most experienced in treating complexly ill patients. The business case is derived from the expectation that better care is less costly; fewer complications lead to shorter hospital stays and fewer procedures. Health plans can perform an important public health function by providing information that guide patients towards centers that are likely to deliver care with lower morbidity and mortality.

The second concept driving WellPoint's strategy is the idea that paying providers for better care will lead to improved care across the entire health care system. Pay-for-performance programs provide incentives based on a number of metrics endorsed by respected national organizations, such as the National Quality Forum, AQA, NCQA and medical specialty societies. While many programs are in the pilot phase, several well-established programs have demonstrated improvements in clinical quality metrics. WellPoint's Quality-in-Sights[®] Hospital Incentive Program (Q-HIP) in Virginia has led to significant improvements in hospital care metrics across the state.

In April 2004 and every year since, President Bush called for widespread use of health information technology (HIT), and for electronic health records (EHRs) to be in use for most Americans by 2014.

The administration recognized that comprehensive improvement in the nation's health care quality required the improved access to information that EHRs provide. The Office of the National Coordinator for Health Information Technology and the American Health Information Community were established by the Department of Health and Human Services with the goal of improving health care through information technology.¹¹ Health insurance companies such as WellPoint have made substantial investments in improving the care delivery infrastructure. WellPoint has introduced several initiatives to speed adoption of HIT by physicians. The Physician Quality and Technology program provided 22,000 physicians with basic health care IT systems at no cost. In St. Louis, WellPoint recently piloted a program that allows emergency department physician online access to a claims-based medical record and pharmaceutical prescribing history for WellPoint patients.

Response to Natural Disasters and Bioterrorism

In the event of a serious disaster that significantly disrupts the health infrastructure at a local or national level, insurance companies can play a critical role in improving communication and supporting the provision of needed care. When patient-level data is lacking, such as when paper records are not available, patient information can be provided through insurance company claims data. This resource can facilitate access to needed care through knowledge of

and relationships with health care providers, as well as enable focused outreach and coordination of care by individuals with relevant expertise. Expanded use of current insurance company resources, such as 24/7 telephone facilities and websites, can serve as points of contact for patients and health care providers seeking information and assistance.

During Hurricane Katrina, health plans played a key role in assuring the health of evacuees. Blue Cross and Blue Shield of Louisiana provided claims-level data to physicians who were able to care for Katrina evacuees. WellPoint filled and distributed prescription medications to individuals who had lost their prescriptions. Patients who did not know what medications they were taking were able to work with health plan associates to identify their medications and receive refills. In total, WellPoint facilitated 15,190 prescription refills. In addition, it reached out to more than 2,600 patients in its disease management programs who lived in hurricane-affected areas to assure their safety and connect them with available resources.

WellPoint and others in the health insurance industry are taking their roles as responders seriously and are working to create formalized relationships with public health agencies, including the Centers for Disease Control and Prevention (CDC) and the Federal Emergency Management Association (FEMA); in this way, they will be positioned to be of assistance to members and communities in the event of future major disruptions of the health care system.

Conclusion

In the course of the twentieth century, the average life expectancy of Americans increased by more than thirty years. We have also witnessed breathtaking advances in molecular medicine and technology. Much of the increase in life expectancy can be attributed to public health successes, such as vaccinations, clean water, recognition of tobacco as a health hazard, and improved motor vehicle safety.¹² In the twenty-first century, improving the health and longevity of Americans will be directly related to preventing and treating chronic disease, addressing issues such as the disparities in the health and health care of racial and ethnic minorities as well as improving access to care for the uninsured. In these efforts, traditional public health agencies, such as state and county health departments, and the federal government, must collaborate with health insurance companies and providers of care to address these new opportunities and challenges.

In 2001, the Institute of Medicine triggered a revolution in health care quality by issuing its landmark study, *Crossing the Quality Chasm*. The report defined six core dimensions of quality health care: efficiency, effectiveness, safety, timeliness, equity and patient-centeredness. The report's mandate was clear, but daunting. The American health care system is underperforming and dramatic measures must be taken to improve the quality of care provided to patients. Health insurance companies, collaborating with providers, government agencies, and patients, will play a key role in building a health care

system that delivers affordable, high-quality care to all patients. 

References

1. Commission on the Future of Public Health. "The Future of Public Health in the 21st Century." National Academies Press: Washington, DC. Institute of Medicine. 1988.
2. Starr, Paul. *The Social Transformation of American Medicine*. Basic Books: New York. 1982.
3. Starr, Paul. *The Social Transformation of American Medicine*. Basic Books: New York. 1982.
4. Stone, Deborah. "Managed Care and the Second Great Transformation." *Journal of Health Politics, Policy and Law*, vol. 24, no. 5, October 1999.
5. Downloaded from <http://www.aqaalliance.org/pilot.htm> October 29, 2006
6. Fisher, ES. Wennberg, JE et al. "Hospital Readmission Rates for Cohorts of Medicare Beneficiaries in Boston and New Haven." *New England Journal of Medicine*. Vol. 328. 989-995. October 13, 1994.
7. McGlynn, EA et al. "The Quality of Health Care Delivered to Adults in the United States." *New England Journal of Medicine*. Vol. 348. 2638-2645. Jun 26, 2003.
8. Cited in Landro, L. "Does disease management pay off?" *Wall Street Journal*. October 20, 2004. D4.
9. Cousins, MS. Liu, Y. "Cost savings for a preferred provider organization population with multi-condition disease management: evaluating program impact using predictive modeling with a control group." *Disease Management*. Vol 6, no. 4. 207-17. Winter 2003.
10. Institute of Medicine. *Crossing the Quality Chasm*. National Academies Press: 2001.
11. Downloaded from <http://www.cchit.org/about/overview.htm> October 29, 2006
12. Ten Great Public Health Achievements – United States, 1900 – 1999. *MMWR*. 1999. 48 (12): 241 – 243.
13. Institute of Medicine. *Crossing the Quality Chasm*. National Academies Press: 2001.