

Consumer Health Websites Accelerate Consumer-Driven Healthcare

By Richard Toner, MS

Consumer health websites (sites) have been around for more than a decade now. *WebMD, RevolutionHealth, MyOptumHealth, HealthCentral, Everydayhealth, QualityHealth...* the list of sites goes on and on. Employers, employees, health plans, providers, and general healthcare consumers have had varying reactions to these sites and buy-in remains largely a personal preference.

What may come as a surprise to some, however, are innovative features and tools recently developed by these sites that generate an enormous amount of self-knowledge and independence for healthcare consumers. Though not intended to replace a physician's expertise or discretion, these tools give consumers a better understanding of, and more control over, their health.

Newer features include: drug interaction checkers, symptom checkers, various health-related calculators, pill identifiers, patient forums, fitness trackers, and of course, personal health records (PHRs). These interactive features have replaced the one-way information delivery tools that originally characterized these sites.

The brief summaries below provide the bases on which employers, employees, and other healthcare stakeholders might begin to reassess their perceptions of these rapidly evolving, predominantly *free* consumer health sites and their usefulness in consumer-driven healthcare.

Drug Interaction Checkers & Pill Identifiers: Patients, especially those with multiple chronic conditions, often take more medications than they or their multiple specialists can keep track of. *Drug Interaction Checkers*, though varying in look and design, enable consumers to personally investigate if one of their drugs adversely interacts with another. More advanced versions of this tool allow patients to enter their symptoms or abnormal lab tests to see if their drugs might be causing them.

If consumers find themselves confused about which capsule is for which medication, *Pill Identifiers* help them to identify medications by name or visual appearance. Consumers can search by imprint (an indented or printed symbol, text, or number on the pill), then by color, and then by shape.

Symptom Checkers: Usually designed as an interactive picture of the human body, *Symptom Checkers* allow consumers to click on the part of the body where symptoms are occurring. The user then progresses through a sequence of questions that narrow the symptoms to a series of potential causes - similar to the differential diagnosis technique used by clinicians. In appropriate instances, responses lead to a recommendation that the patient seek immediate medical attention e.g. "*Dial 911 for an ambulance immediately. If you are not allergic to aspirin, chew and swallow any size aspirin immediately.*"

Health Calculators: Health calculators and risk assessments are nothing new to health professionals. However, making these tools widely accessible and configuring them in a way that allows consumers to use them without difficulty is a novel and positive change.

Health calculators likely to be found on these sites include: Body Mass Index (BMI), Metabolic Rate, Ovulation Estimator, Cigarette Cost Calculator, Real-Age Calculator (based on biometrics), 10-year Heart Attack Risk, 10-year Stroke Risk, Healthy Weight Estimator, Stress Test, Children's Growth Calculator, Baby Due Date... the list is infinitely long.

Patient Forums: Also known as support groups, discussion boards, and message boards, this feature allows patients to share knowledge and experience with, and receive support and guidance from, patients suffering from the same or similar conditions. Patient forums are often moderated or hosted by clinical experts within the field who aide and facilitate discussion.

Fitness Trackers: A focus on disease prevention is a key value-based purchasing strategy. However, long-term tracking of dietary intake and physical activity using traditional logs or journals can be tedious and challenging for healthcare consumers. The latest versions of online *Fitness Trackers* make the task of managing health easier and more rewarding.

With minimal input on a few demographic and biological metrics, patients are provided with dietary and physical activity decision support, projections on what can be expected given certain lifestyle changes, and the computing power to generate charts and reports across specified time intervals; for example, tracking clinical metrics like glucose level, blood pressure, or basal body temperature over time. Consumers can access their web-based trackers from any location with Internet access, e.g. the gym or workplace. If a consumer misses a day, a week, or a month, he/she can resume at any time because health historical data remains secured in personal profiles.

Personal Health Records: Most stakeholder groups support the increased infusion of information technology into healthcare. Allowing consumers to control their own health information is central to continuity of care. PHRs allow consumers to store their own clinical information - e.g. medications, medical history, radiology results, lab results, appointments - in a secure, online profile. While some proprietary companies offer PHRs to consumers for a fee, consumer health sites have expanded their scope of services and now offer PHRs free-of-charge to consumers. PHRs hosted through these sites allow consumers a one-stop-shopping experience for managing their health.

Conclusion: The innovative, widely-accessible, and free services provided by consumer health sites are gaining recognition as powerful tools for achieving the ultimate goal - a more informed healthcare consumer. The websites discussed in this article are at the cutting edge of a much broader change occurring in healthcare. If history tells us anything, it is that social changes often follow major technological innovations. True consumerism in healthcare will not be achieved through consumer-driven health plans or innovative benefit designs alone, but rather in combination with readily accessible health information made possible by the Internet. Purchasers of healthcare services would be wise to examine the latest generation of consumer health websites and assess their usefulness in wellness and prevention initiatives.

Richard W. Toner, MS is a Project Manager at the Jefferson School of Population Health.