Information Technology (IT) provides an avenue for access to advances in health care knowledge, information and resources to a greater extent than ever. Health care information systems are expected to reduce medical errors, improve quality of patient care and safety. These systems are increasingly supporting evidence-based medicine and patient-centric technologies, including monitoring of patient outcomes and adverse events, as well as better informing and empowering consumers themselves to seek better outcomes. The Consumer Health Informatics, Patient Safety and Quality of Practice Minitrack uses the unique international and interdisciplinary forum provided by HICSS for expression of practical and theoretical, academic and industrial insight in this area.

The paper entitled “Extending the Use of Games in Health Care” introduces the theme of consumer involvement in the healthcare process with a focus on pediatric care. In this paper, Watters, et. al. provide support for children, families, and health researchers to engage in games and game-like scenarios to encourage compliance and monitoring of long-term treatments for chronic disorders like diabetes and inflammatory bowel disease. The underlying hypothesis is that patients will be more engaged in the management of their treatment using the game than they would be using traditional recording tools.

The next three papers focus on Internet-based health information in the context of health outreach through on-line resources. The first two highlight the theme of consumer involvement in health care through the theory of behavior change using internet-based technology. The paper by Culjak and Spranca, entitled “The Internet Improves Health Outcomes in Depression,” shows how the Internet provides pathways to care through wider-spread access to self-help websites and an increased awareness of depression than previously possible through traditional media, and how this increased awareness influences individual behavior. The authors provide a conceptual model of Behavior Change and show how this leads to increased motivation. It further shows how these changes in behavior lead to a decrease in the incidence, severity and longevity of depression. The second paper, by Shimoda and Stapel, tests an online software agent system and introduces a consumer-centric technology designed to deliver smoking cessation messages. Several hundred messages were categorized with meta-data based on the Stages of Change Theory and other meta-information. Three types of software agent scripts were developed to support generic (mass media), tailored (matching individual factors to messages), and interpersonal (highly interactive) communication styles. The third paper, by Houston et. al., focuses on better equipping healthcare givers to benefit from on-line resources. These authors assess the feasibility of “bridging the digital divide” by training community health advisors (CHAs) from low-income communities to use high-quality Internet-based health information in the context of health outreach activities to low-income, low-literacy African-American populations.

Multiple papers in this minitrack focus on the consumer becoming more involved in the understanding, decisions and management of their own health. In our first paper of this nature, Civan and Pratt introduce a Multidimensional Quality Framework as a new structure for characterizing the quality of online health information. One aspect of a patient-centric focus is security. Legislation, such as the US Health Insurance Portability and Accountability Act (HIPAA) implies that Medical Information Systems must implement reasonable privacy policies and procedures that limit how much protected health information is used, disclosed, and requested for certain purposes. Bhattacharya, Gupta and Agrawal, present an EPAL (IBM’s Enterprise Privacy Authorization Language) based privacy middleware architecture called Privacy Broker that attempts to reduce privacy violation risk and enforce committed privacy policy in health information systems.

Collectively, the papers in this minitrack show how IT provides avenues for improved access to the ever-expanding body of health knowledge and that people are increasingly seeking to access those resources in a secure manner. The papers provide discussion points to stimulate further innovation in the area of Consumer Health Informatics, Patient Safety and Quality of Practice.