



Connected Health: Improving Patients' Engagement and Activation for Cancer-Related Health Outcomes

President's Cancer Panel 2014-2015 Series

The power and utility of connected health technologies are growing. Many forces are catalyzing a national U.S. effort to engage and activate individuals to be more proactive about their health and healthcare and to translate this engagement to enhanced activation among patients. These forces have important implications for the prevention and treatment of cancer and for optimal survivorship. They include but are not limited to:

- **“Meaningful Use”** incentives to healthcare providers focus on requirements to demonstrate “patient engagement” through health information technology (Phases 2 & 3).
- **The “Quantified Self”** movement is creating new tools to encourage and reinforce a variety of healthy behaviors relevant to cancer control.
- **The Internet** has made vast amounts of health information available, and social media platforms have revolutionized the way people receive and share health-related data and information.
- **Advances in technology** are increasing the availability, affordability, and accessibility of devices and applications to track personal health data. Mobile health apps, which now number more than 100,000, can literally put reminders to take medication in one’s pocket.
- **Changes in the health information landscape** enable individuals to be engaged in their own health and healthcare, supported by their own and others' health data.

A patient with a complex chronic condition receives a prescription for an app that is downloaded to a mobile device. Using information the patient enters, the app delivers automated clinical coaching and sends reports to the physician, recommending evidence-based protocols for adjusting the patient’s treatment regimen, if needed. Equipped with a tool that offers personal, relevant guidance driven by real-time data, the patient and physician can both make smarter health-management decisions.

Connected health offers a framework to support individuals and their evolving relationships with their health and healthcare systems. Patients are increasingly using online technologies and intelligent devices to take charge of their health and manage chronic conditions, including cancer. Growing [evidence shows](#) that connected health technologies can make healthcare more effective and efficient by electronically connecting patients to clinicians, patients to other patients, and clinicians to clinicians. Connected health and [patient activation](#) may [increase adherence to treatment regimens](#), such as oral cancer medications; [lower patients’ distress](#); [reduce unnecessary ER visits and hospitalizations](#); and [lower costs](#). However, the data still are not definitive, and there has been far too little application of connected health to cancer prevention, treatment, and survivorship.

As patients' interactions with clinicians and healthcare systems extend beyond traditional roles and settings, it is critical to understand the potential, progress, downsides, limitations, advantages, and implications of connected health for cancer prevention, treatment, and survivorship.

The efforts of many organizations and individuals are helping to shape the evolving reality of connected health. National policy initiatives offering incentives for health systems to embrace electronic connectivity are driving adoption and use of health IT nationwide. The [President's Council of Advisors on Science and Technology](#), [Institute of Medicine](#), [American Society of Clinical Oncology](#), and others have called for greater health system connectivity and highlight its importance in achieving insight-driven and patient-centered healthcare.

The President's Cancer Panel will conduct a series of workshops to answer timely, critical questions about connected health strategies and technologies and their potential to engage and activate individuals and patients, with the ultimate goal of improving cancer-related outcomes.

The focus is not on the health provider side except to the extent that providers are communicating and engaging with individuals and patients. Participants will be leaders and visionaries in communications, computing, technology, policy, government, academia, health and healthcare, and advocacy. Key issues for discussion include the following:

- Potential cancer-related health outcomes achievable with connected health
- Transformative processes, ideas, devices, strategies, and technologies on the horizon
- Impact of connected health on diverse patients
- Barriers to adoption of connected health
- Use of public, patients', and other relevant data in promoting patient engagement and advancing research
- Identification of research needs to advance adoption and optimal use of connected health to prevent cancer, detect it early, treat it optimally, and maximize survivorship

Formal presentations and discussion among participants will inform the Panel's recommendations in a formal report to the President of the United States.

Visit pcp.cancer.gov or follow the Panel on [Twitter](#) at [@PresCancerPanel](#) for more information about this groundbreaking series, including workshop content and participants.

*The **President's Cancer Panel** comprises three members appointed by the President of the United States. Current members are **Barbara Rimer, DrPH**, Chair, Dean and Alumni Distinguished Professor, UNC Gillings School of Global Public Health; **Hill Harper, JD**, cancer survivor, four-time New York Times Best-Selling Author, actor, and philanthropist; and **Owen Witte, MD**, Director, UCLA Eli and Edythe Broad Center of Regenerative Medicine, and Stem Cell Research Investigator, Howard Hughes Medical Institute. Visit pcp.cancer.gov for more information.*

There is an expectation, not yet realized, that connected health technologies have potential to maximize the value of our nation's investments in cancer by supporting activated and empowered individuals and patients.

