

## **FCC CHAIRMAN GENACHOWSKI HOSTS mHEALTH SUMMIT, UNVEILS NEW PLAN TO HELP SPEED mHEALTH TECHNOLOGIES TO MARKET**

### **PRIVATE SECTOR, ACADEMIC, AND GOVERNMENT LEADERS DISCUSS THE OPPORTUNITIES AND CHALLENGES OF MOBILE AND WIRELESS HEALTH TECHNOLOGIES**

#### **CHAIRMAN CHALLENGES PRIVATE SECTOR TO REPORT BACK WITH PLAN TO TACKLE OBSTACLES, IMPROVE HEALTH, AND REDUCE COSTS**

*FCC Chairman Genachowski hosted a discussion at the Commission's headquarters with private, academic, and government leaders in wireless health technology to discuss the promise of mobile communications devices, such as smartphones, for health information, to improve health care, and lower costs, including practical steps the assembled leaders could take to foster innovation in the sector. The Chairman was joined by senior executives and leaders from companies at the forefront of the mHealth revolution, including Philips, Qualcomm, Verizon, and Medtronic, startups such as MedApps, Telcare, TheCarrot, and WellDoc, non-profits including the West Wireless Health Institute and the Alfred Mann Foundation, hospital leaders, and government experts from the FCC, FDA, HHS, VA, CMS, and NIH. At the roundtable discussion, the Chairman announced a plan for enhanced spectrum access for testing new wireless health innovations, with the goal of speeding new mHealth technologies to market.*

#### **I. FCC's mHealth Summit convened senior executives and leaders from the health care technology industry, academia, and government to discuss the opportunities and challenges of mobile and wireless health products.**

- Representatives included senior executives and leaders from *Alfred Mann Foundation, Center for Integration of Medicine and Innovative Technology (CIMIT), Center for Medicaid and Medicare Innovation (CMMI), the U.S. Department of Health and Human Services (HHS), the U.S. Department of Veterans Affairs, the U.S. Food and Drug Administration (FDA), Health Resources and Services Administration (HSRA), MedApps, Medtronic, George Washington School of Medicine, National Institutes of Health, Philips Healthcare, Qualcomm, Telcare, Verizon, WellDoc, and West Wireless Health Institute.*
- Participants discussed the opportunities and potential of mHealth technology to revolutionize the delivery of patient care, both by increasing patient awareness and engagement with their own health, and by cutting costs and improving outcomes in hospitals and doctor's offices.
- Participants also discussed the challenges to increased adoption of mHealth, including the regulatory approval structure, reimbursement and payment issues, maintaining privacy and security for patient information, and evaluation of mHealth products and services.

#### **II. Chairman Genachowski announced a plan to cut red tape and increase spectrum flexibility for testing new wireless health innovations, to speed new wireless health technologies to market.**

- At the roundtable discussion, Chairman Genachowski announced plans to act on an FCC Office of Engineering and Technology proposal to increase innovation in wireless device development by reducing regulatory barriers to testing and evaluation of new technologies.
- *Increased flexibility:* In the coming months, the Chairman intends to move to create more flexibility for experimental uses of spectrum for wireless health care devices. New, streamlined experimental licensing processes will also be created for universities and non-profits.
- *New research licenses:* The proposal would create a research license that cuts the red tape to testing new wireless medical devices, in coordination with the FDA, and get new technologies to market.
- *New innovation zone licenses:* Additionally, the FCC proposes to create an innovation zone license to allow pre-approved spectrum use experimentation in specified locations.

- III. **Chairman Genachowski challenged roundtable participants to work together and create solutions to address the issues raised in the discussion.**
- Qualcomm, TheCarrot, and CIMIT will lead the effort to research the barriers to rapid deployment of mHealth technology and present an industry-led plan to address those barriers.
  - At a follow-up meeting in September, participants will present a white paper outlining suggestions of what needs to happen to increase the adoption of evidence-based mHealth technology, and what this working group can do together to create solutions.
- IV. **The FCC is committed to harnessing spectrum and health IT to improve health outcomes and lower health care costs:**
- **Medical Body Area Networks (MBANs):** In May 2012, the FCC moved to allocate spectrum for Medical Body Area Networks (MBANs), the first country in the world to dedicate spectrum for this usage.<sup>1</sup> MBANs are wireless sensors, often no bigger than a Band-Aid, that continuously transmit data on a patient's vital health indicators to their doctor or hospital.
  - **Rural Health Care Pilot:** The FCC initiated a pilot funding program to facilitate the creation of a nationwide broadband network dedicated to health care, connecting public and private non-profit health care providers in rural and urban locations. The FCC has proposed permanent reforms based on the data received from the pilot.
  - **Medical Micropower Networks (MMNs):** In 2010, the FCC adopted rules to enable a new generation of wireless medical devices that can be used to restore functions to paralyzed limbs. MMNs are ultra-low power wideband networks consisting of transmitters implanted in the body that take the place of damaged nerves, restoring sensation and mobility.
  - **FCC & FDA Memorandum of Understanding:** In 2010, the FCC entered into an unprecedented partnership with the Food and Drug Administration, working together to ensure that communications-related medical innovations can swiftly and safely be brought to market.
- V. **Recent Innovations in mHealth from Summit Participants**
- *TheCarrot:* A [web and mobile platform](#) for health management and care coordination allows patients to create a plan that meets their goals, share their plan with friends, and record information on the go.
  - *MedApps:* Wireless sensors transmit data on a patient's health indicators to a central [database in the cloud](#) called HealthAir, which the patient's doctor can use to keep track of the patient's progress.
  - *Medtronic:* An integrated [glucose monitor](#) that tracks blood sugar levels every five minutes and an infusion pump that receives that data and adjusts insulin levels accordingly.
  - *Philips:* [Clinical Decision Support](#) tools that interpret raw patient data and convert it to actionable information that physicians can put to use.
  - *Qualcomm:* [2net, a cloud-based system](#), is designed to be universally interoperable with various medical devices and applications, providing wireless connectivity while allowing device users and physicians to access patient data.
  - *Telcare:* A [smartphone app](#) that automatically receives blood glucose data and creates personalized reports that can be shared with physicians or family members.
  - *WellDoc:* A [Patient Coach](#) gives feedback to patients seeking to manage their diabetes.

## THE WIRELESS HEALTH CARE REVOLUTION

- VI. **Wireless medical devices can increase efficiency and improve health care delivery throughout the health care system.**

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<sup>1</sup> Chairman's Proposal To Spur Innovation In Medical Body Area Networks: <http://www.fcc.gov/document/chairman-proposal-spur-innovation-medical-body-area-networks>.

- Wireless monitoring allows health care providers to receive continuous data on a patient's health indicators, deliver tailored feedback to the patient, and intervene before a patient's condition deteriorates.
- Improved quality of care: Continuous monitoring gives physicians a more comprehensive view of a patient's condition. Automatic alerts allow physicians to intervene or modify treatment before a patient's condition becomes life-threatening.
  - Patients who used a mobile phone tracking system developed by WellDoc received regular, tailored self-care messages and were able to achieve significant reduction in blood sugar levels over a one-year long study.<sup>2</sup>
- Increased health care cost savings:
  - Economist Robert Litan found that remote monitoring technologies could save as much as \$197 billion over the next 25 years in the United States.<sup>3</sup> These savings are largely due to better management of chronic diseases. mHealth gives providers more information to work with, and can increase the likelihood that a patient will consistently stick with a treatment regimen, improving health outcomes in the long term and reducing health care costs.
  - mHealth can reduce the costs of medical care among the elderly by 25%, because it reduces the number of face to-face consultations needed, and allows seniors to live independently and spend more time at home, instead of expensive hospital stays.<sup>4</sup>
  - Proactive care, where the patient is the center of his or her care team, leads to a 10% reduction in primary and urgent care visits.
  - Costs related to data collection can be reduced by allowing patients and doctors to access health records remotely, increase efficiency, avoid duplication, and save between 20% and 30% in administrative costs.<sup>5</sup>

## **VII. mHealth empowers individual consumers to manage their own health care and promises major strides in chronic disease management.**

- mHealth applications are popular among consumers: Almost 17 million Americans accessed health information on mobile devices in 2011<sup>6</sup> and about 30% of smartphone users are likely to use wellness apps by 2015.<sup>7</sup>
- Chronic diseases management accounts for 75% of total health system costs—nearly \$7,900 for every American with a chronic disease.<sup>8</sup> Wireless sensors, patient care management systems, and mobile apps for fitness and nutrition can potentially cut some of these costs, by empowering those with chronic conditions to have more control over their health.
- Remote monitoring of patients with chronic conditions has resulted in up to a 56% reduction in mortality, a 47% reduction in risk of hospitalization, reduced hospital stay length, and a 65% reduction in office visits—all potential areas for cost savings.<sup>9</sup>
- Wireless technologies have the potential to deliver cost savings and better health outcomes, by providing preventative real-time feedback to consumers and incentives to promote adherence to medication or fitness regimens, increasing proactive health management.

<sup>2</sup> Neil Versel, "Mobile Diabetes App Makes The Grade, Information Week," Sept. 22, 2011: <http://www.informationweek.com/news/healthcare/mobile-wireless/231601896>.

<sup>3</sup> Robert E. Litan, *Vital Signs Via Broadband: Remote Health Monitoring Transmits Savings, Enhances Lives, Better Health Care Together*, Oct. 24, 2008: <http://www.corp.att.com/healthcare/docs/litan.pdf>.

<sup>4</sup> *Socio-Economic Impact of mHealth*, Apr. 2012: <http://telenor.com/wp-content/uploads/2012/05/BCG-Telenor-Mobile-Health-Report-May-2012.pdf>.

<sup>5</sup> *Id.*

<sup>6</sup> Study: Mobile Access to Health Data Rose 125 Percent in 2011, Jan. 2012: <http://mhealthwatch.com/study-mobile-access-to-health-data-rose-125-percent-in-2011-18667>.

<sup>7</sup> The Boston Consulting Group and Telenor Group: <http://telenor.com/wp-content/uploads/2012/04/the-socio-economic-impact-of-mHealth.pdf>.

<sup>8</sup> *Chronic Disease Overview: Costs of Chronic Disease*: <http://www.cdc.gov/nccddp/overview.htm>.

<sup>9</sup> Continua Health Alliance, *The Next Generation of Healthcare*, 2010: [http://www.continuaalliance.org/static/cms\\_workspace/overview\\_presentation/Continua\\_Overview\\_Presentation\\_Final.pdf](http://www.continuaalliance.org/static/cms_workspace/overview_presentation/Continua_Overview_Presentation_Final.pdf).