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PREPARED REMARKS ON MEDICAL BODY AREA NETWORKS
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It's great to be here to talk about new steps to seize the opportunities of Medical Body Area Networks. These will improve patient care, increase patient mobility, and encourage medical innovation.

The reason I'm here is that the FCC is the nation's expert agency on communications technology – and innovation at the intersection of communications technology and health care is essential to the quality of care for all Americans. That's been true for years.

Back in 1923, a doctor's manual stated that the telephone had become as necessary to the physician as the stethoscope.

Today, health care is being transformed once again, this time by high-speed Internet access, or broadband – wired and wireless, fixed and mobile.

As Dr. Eric Topol wrote in his new book *The Creative Destruction of Medicine*, "The emergence of powerful tools to digitize human beings with full support of [our Internet] infrastructure creates an unparalleled opportunity to forever change how health care is delivered."

Technology is helping doctors and scientists do their jobs better and faster. It's giving people access to better information, tools and technologies. It is transforming our health care system.

Today, a cardiologist in a large research hospital in Des Moines, for example, is reading the EKG of a young patient in remote Iowa – spotting irregularities before they turn into more serious conditions.

A "smart" pill box can send automatic reminders to a patient to take her daily medication, and the smart box will alert her physician or family members if she skips it.

New mobile diabetes management devices are freeing patients from the burden of logging their glucose measurements and making remote monitoring a seamless process.

Since I became Chairman, the FCC has been working to harness to power of communications technology to improve the quality of health care, lower costs, and save lives.

In 2009, we began developing our country's first National Broadband Plan, which identified health care as an area of enormous promise for broadband-enabled innovation. The plan included many recommendations, which we have been implementing.

The FCC is pursuing a health strategy with three key components:
promoting connectivity; fostering fast-paced innovation of wireless networks, medical devices and mobile apps; encouraging greater adoption of life-saving health technology; and ensuring that spectrum is optimally allocated and managed.

On connectivity, we transformed the multi-billion dollar Universal Service Fund from supporting plain old telephone service to a new Connect America Fund that supports universal broadband,

which is helping bring broadband and digital health solutions to 18 million unserved Americans around the country.

Connectivity is the infrastructure that makes this all possible—none of these innovative technologies can reach their full potential without fast, reliable broadband access.

And for the first time, the Commission established a goal as part of the Universal Service Fund of getting broadband to all community anchor institutions – including hospitals, clinics and family doctors' offices – throughout America.

Connecting Americans also requires promoting broadband adoption, particularly among seniors and low-income Americans who are disproportionately on the wrong side of the broadband divide and could disproportionately benefit from digital medicine. Our Connect to Compete Initiative enlists government, nonprofit, and private sector leaders to tackle the barriers to adoption and digital literacy.

On medical devices, we entered into an unprecedented partnership with the Food and Drug Administration to help ensure that communications-related medical innovations can swiftly and safely be brought to market.

On spectrum – the oxygen that sustains all wireless medical technologies – we're pursuing a multi-track mobile action plan to free up more spectrum for both licensed and unlicensed use. We've also taken steps to ease testing restrictions on universities and research organizations, and late last year, the Commission dedicated spectrum for Medical Micropower Networks, which have the potential to enable paraplegics to stand.

Next week, the FCC will have an opportunity to take the next step forward on our health agenda when we consider new rules to allow greater use of spectrum for Medical Body Area Network, or MBAN, devices.

As you've heard from previous speakers, MBAN technology consists of small, low-powered sensors on the body that capture clinical information, such as temperature and respiratory function. These sensors free patients from the set of wires that would otherwise anchor them to their hospital bed.

MBAN technology has tremendous potential to improve the quality of health care and ensure better outcomes for patients.

About half of all patients in US hospitals are not monitored. MBANs provide a cost-effective way to monitor every patient in a healthcare institution, so they can provide real-time and accurate data, allowing doctors and nurses to identify life-threatening problems or events before they occur.

The real game changer for MBAN technology can be health monitoring in the home.

With in-home patient monitoring, premature babies could come home a little sooner, a father struggling with heart disease can be aware of his condition and still make his kids' soccer game, and a grandmother living alone could stay in her home and keep her independence.

This new monitoring technology will result in higher quality care and also lower health care costs.

With MBAN technology, physicians can intervene before a patient's condition seriously deteriorates—resulting in less time spent in the intensive care unit, and also a reduction in costly follow-up visits.

Avoiding expenses from moving patients from rehabilitation clinics and nursing homes to emergency departments and physician offices, or from one emergency department to another, could result in $1.2 billion in annual savings.

On top of better care and lower costs, MBAN technology can also be a platform for new innovations we can only imagine.

To maximize the potential of MBAN technology, the FCC will consider adopting new rules permitting more intensive use of spectrum for wireless medical devices.

If the Commission approves these rules at next week's open commission meeting, it will make the U.S. the first country in the world to dedicate spectrum for Medical Body Area Networks in hospitals, clinics, and doctors' offices.

Previously, this spectrum was used almost exclusively by commercial test pilots. The FCC's proposed rules represent a multi-industry effort to foster innovation in this spectrum band by allowing distinct but compatible users to share these airwaves.

This allocation will increase the spectrum capacity and enhance the reliability of wireless medical technology.

This creative use of spectrum also provides wireless health manufacturers with the certainty they need to streamline their product development, which for many years operated on a variety of frequencies. I expect it will eventually lead to technologies not just for health care facilities, but also for in-home use.

You've heard people talk about the Internet of Things. You've heard about machine-to-machine connected devices. Well here's an example of these concepts coming to life. This is a big deal, and we're just at the beginning.

Again, I want to thank GE and Philips, and also the physicians here who are doing breakthrough work with Medical Body Areas Networks. Working together, we can build on our progress and seize the opportunities of digital medicine, helping countless Americans lead healthier lives.