**Written Statement of**
**Mohit Kaushal MD MBA**
**Health Care Director**
**Federal Communications Commission**

**"Aging in Place: The National Broadband Plan and**
**Bringing Health Care Technology Home"**
**Hearing before the**
**Special Committee on Aging**
**United States Senate**
**April 22, 2010**

Good afternoon Chairman Kohl, Ranking Member Corker, and distinguished Members of the

Senate Special Committee on Aging. My name is Dr. Mohit Kaushal and I head up the health

care team for the National Broadband Plan at the Federal Communications Commission.

As you know, Congress mandated that the FCC prepare a "national broadband plan" that "shall

seek to ensure that all people of the United States have access to broadband capability," and

include a strategy for affordability and adoption of broadband.  The National Broadband Plan

also recommends how broadband can be harnessed to tackle important "National Purposes,"

including health care

Improving America's health and America's health care system is one of the most important tasks

for the nation. Health care already accounts for 17% of U.S. gross domestic product (GDP) and

by 2020, it will top 20%.[1] This is due to many factors but one of the most important is that

America is aging. There is a direct correlation between the elderly and chronic disease, which

---

[1] CTR FOR MEDICARE & MEDICAID SERV., NATIONAL HEALTH EXPENDITURE PROJECTIONS 2008–
2018, http://www.cms.hhs.gov/NationalHealthExpendData/downloads/proj2008.pdf (last visited Jan. 21, 2010).

already accounts for 75% of the nations health care costs.[2] 5% of Medicare beneficiaries, who in most cases have one or more chronic conditions, constitute 43% of Medicare spending.[3] By 2040, there will be twice as many Americans older than 65 as there are today.[4]

But there's a set of broadband-enabled health information technologies (health IT), both now and emerging from development, that can mitigate many of these issues and reduce the cost of care while improving clinical outcomes. One study claims that remote monitoring could generate net savings of approximately $200 billion over 25 years from just four chronic conditions. Although economic studies like these are open to criticism due to the difficulty in quantifying savings, the Veterans Hospital System has implemented its Care Coordination / Home Telehealth Program (CCHT) for 32,000 veteran patients with chronic conditions. The program has resulted in a 19% reduction in hospital admissions and a 25% reduction in bed days for those veterans who are admitted. There is also a significant cost saving associated with these improved clinical outcomes; the CCHT Program, at $1,600 per patient per year, costs far less than the VHA's home-based primary care services, at $13,121 per patient per year, and nursing home care rates, at $77,745 per patient per year.[5]

[2] Susan Dentzer, Reform Chronic Illness Care? Yes, We Can, 28 HEALTH AFF. 12, 12 (Jan./Feb. 2009), available at http://content.healthaffairs.org/cgi/reprint/28/1/12.
[3] http://www.cbo.gov/ftpdocs/63xx/doc6332/05-03-MediSpending.pdf
[4] http://www.census.gov/population/www/projections/summarytables.html
[5] Adam Darkins et al., *Care Coordination/Home Telehealth: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions*, 10 Telemed. & e-Health 1118, 1118 (2008), *available at* http://www.liebertonline.com/doi/pdf/10.1089/tmj.2008.0021?cookieSet=1.

Even though these technologies hold great promise, the US lags behind other developed

countries in health IT adoption, with one study ranking it in the bottom half (out of 11 developed

countries) on every metric used to measure adoption.[6]

The Broadband Plan identifies some of barriers that hinder the adoption of broadband-enabled

health solutions and provides specific recommendations the government should undertake to

remove them.

With respect to the e-care technologies that enable "aging in place," these barriers and

subsequent proposed solutions fall into three main categories:

1. The connectivity gap. Broadband is either missing or too expensive.

2. Misaligned economic incentives. The prevailing fee-for-service reimbursement
   system pays for volume rather than outcomes, and hence prevents many of these
   technologies from being paid for.

3. Outdated regulations, created back when our only interactions with physicians were
   in their offices – not via remote monitoring and videoconferencing.

Let me now discuss each in detail:

---

[6] CATHY SCHOEN & ROBIN OSBORN, THE COMMONWEALTH FUND, THE COMMONWEALTH FUND
2009 INTERNATIONAL HEALTH POLICY SURVEY OF PRIMARY CARE PHYSICIANS IN ELEVEN
COUNTRIES 10 (2009),
http://www.commonwealthfund.org/~/media/Files/Publications/In%20the%20Literature/2009/Nov/PDF_Schoen_20
09_Commonwealth_Fund_11country_intl_survey_chartpack_white_bkgd_PF.pdf. Count of 14 functions includes:
(1) electronic medical record; (2, 3) electronic prescribing and ordering of tests; (4–6) electronic access to test
results, Rx alerts, and clinical notes; (7–10) computerized system for tracking lab tests, guidelines, alerts to provide
patients with test results, and preventive/follow-up care reminders; and (11–14) computerized list of patients by
diagnosis, by medications, and due for tests or preventive care.

The **first** issue is connectivity, including both broadband at home as well as connectivity to health providers. With respect to the home, the Plan estimates that 93 million Americans are not connected to broadband.  We estimate that 14-24 million Americans do not have access to broadband where they live, even if they want it. It's hard to identify what proportion of the 14-24 million, who don't have the necessary infrastructure, is over the age of 65. But what we do know is that the over-65s are poor adopters of broadband, estimated to be 35% as compared to the national average of 65%[7]. This is due to multiple reasons such as cost, digital literacy, and perceived lack of relevant digital content delivered over the internet. In order to respond to these challenges, the Plan sets the ambitious goal of providing access for every American to robust and affordable broadband service. This will be achieved by a once-in-a-generation transformation of the Universal Service Fund, which includes the creation of a "Connect America Fund" as well as expanding "Lifeline Assistance" and "Link-Up America".  Mobile solutions are also an important piece of the Broadband Plan's strategy for home broadband: the proposed Mobility Fund will help bring all states to an equal level of "3G" wireless coverage.

My focus has been primarily on the connectivity issues for health care providers. It is imperative that hospitals and physician offices have adequate connectivity as any care that will be delivered to an individual's home will originate in a health care facility of some description. Our analysis highlighted that some providers are not served by existing "mass market" broadband infrastructure. Approximately 3,600 small physicians' offices fall into this gap. Larger providers must purchase "Dedicated Internet Access" (DIA) to meet their quality of service requirements, but those are often 4X or greater in price than mass market solutions. This cost issue is further

---

[7] Chapter 9, "Adoption and Utilization", National Broadband Plan

exacerbated by the fact that DIA solutions differ greatly in price, thus preventing all providers from having affordable broadband available to them.

The National Broadband Plan addresses the health care provider connectivity issues by proposing a revamp of the FCCs Rural Health Care Program. The program, capped at $400M per year, is the largest sustainable fund for health care connectivity within the government. We are proposing to create a permanent infrastructure fund as well as continuing to subsidize monthly internet charges. Importantly, any FCC funding must ensure that broadband for health care providers is resulting in improved health outcomes and we are working closely with the Office of the National Coordinator in order to apply the evolving "Meaningful Use" criteria to FCC subsidy programs.

**Secondly**, although the connectivity supply problem is an issue, the greater barrier is on the demand side of the equation. Within a fee-for-service reimbursement system, providers bear the costs of health IT implementation and changes to workflow, but don't fully capture the economic gains they create through improved clinical outcomes. The plan recommends that well-understood use cases of e-care technologies should be incented with outcomes based reimbursement, similar to the Meaningful Use program for Electronic Health Records. In addition, novel technologies should be tested for their clinical efficacy, as well as within payment model pilots, in order to ascertain their economic value. Given that it will take many years to implement an outcome-based payment model, reimbursement should be expanded for e-care technologies that will prove system-wide expenditure reductions under CMS's fee-for-service model. It is imperative that there are economic incentives for physicians of various specialties to collaborate together and better manage elderly patients with chronic conditions that often require multiple specialty input. In addition, incentives must be aligned to promote the

prevention and better management of disease within the community rather than reactively and at greater expense within hospitals. The plan recommends a dedicated effort by HHS, requested by Congress, to propose specific programs and reimbursement changes (also suggested in the plan) that will help realize the value of e-care technologies.

**Third**, there are a range of regulations that prevent e-care solutions from being adopted. State licensing, credentialing, and privileging rules prevent physicians from providing remote broadband-enabled care across state lines and even at other hospitals than their usual place of work. Patient safety must be addressed by ensuring that physicians are suitably skilled – but regulations must not hinder the innovation and gains promised by health IT. To this end, the plan recommends that credentialing, privileging, and licensing rules must be re-evaluated.

In addition, there is a great deal of regulatory uncertainty regarding the convergence of telecommunication and medical devices, which is preventing private sector investment and innovation. At one end, general-purpose communications devices such as smartphones, videoconferencing equipment, and wireless routers are regulated solely by the FCC. At the other, medical devices, including life-critical wireless devices such as remotely controlled drug-release mechanisms, are regulated by the FDA. However, the growing variety of medical applications that leverage communications tools to transmit information presents challenges to the current federal regulatory regime. Convergent devices and the applications within this grey area vary greatly. Some are intended to be used by clinicians and others by consumers. Some, if they fail, would likely result in significant adverse events; others may only represent a mild inconvenience. Further regulatory transparency within the area must be provided to industry. The FCC and FDA both recognize this need, and are working together to address it. A workshop,

in conjunction with industry, is being planned by the end of this summer, with the aim of better framing the problem and proposing distinct solutions.

There are multiple barriers that must be resolved in order to develop the ecosystem of broadband-enabled health IT. Technology alone will not solve our health care challenges; it must be coupled with payment reform, innovation in service delivery, and improved regulatory transparency before we will recognize the health benefits and cost savings promised by these technologies.  My experience in entrepreneurship, clinical medicine, public health, venture capital, and now within government has cemented how complex the delivery of health care is. Significant barriers and misaligned incentives must be removed before the private sector can start producing solutions. Thus any government approach to solve these issues must be coordinated — not only across the government, but with the private sector and the entire health care community.

I thank you all for giving me the opportunity to speak today.