

Chairman John Thune
Written Questions for the Record to
Mr. Todd Rytting
“Advancing Telehealth through Connectivity”
Senate Committee on Commerce, Science, and Transportation

Question 1: Thank you for your testimony highlighting the innovative work that Panasonic has done to study the effects of remote patient monitoring. I’d like to ask about the proposal you raised that would use the FCC’s Universal Service Fund to subsidize the connectivity costs of remote patient monitoring for rural health care providers.

Based on your own remote patient monitoring pilot, do you have a sense of what the costs and benefits would be of this proposal – for example, how much money would need to come from the universal service fund to support remote patient monitoring as compared to the potential cost savings for providers and patients resulting from such technologies?

Answer:

In 2014, Panasonic conducted a Home Telehealth performance study in partnership with a New York-based provider of long term, sub-acute eldercare services and a major Medicare Advantage provider in Metropolitan New York.

The study was centered on Panasonic “SmartCare,” a television-based remote patient monitoring technology designed to be user-friendly for seniors – who may not be comfortable with contemporary consumer technologies, such as smartphones. SmartCare utilizes a small set-top box that interacts with a patient’s television to deliver remote biometric monitoring, interactive health-assessment surveys, and condition-specific educational health videos to facilitate patient self-management. The study’s background, objectives, design parameters, and outcomes are documented in the White Paper submitted to this Committee under separate cover.

The general objective of our study was to determine the impact of Panasonic’s television-based remote patient monitoring technology on the chronic care management of seniors with congestive heart failure and having a high-risk for re-hospitalization.

Using baselines established from Medicare Advantage claims data, and historic data for dual-eligible patients drawn from studies published by the Kaiser Family Foundation, SmartCare reduced six month hospital readmission rates by an average of 44% for Medicare Advantage Patients and 69% for dual-eligible patients, respectively. Strikingly positive results were also attained in the reduction of Emergency Department visits, increased Medication Adherence, and positive measures of patient engagement.

As demonstrated by our study, and the potential for savings is real, and significant.

An estimated 17% of Medicare beneficiaries have Congestive Heart Failure (CHF), which account for 800,000 hospital admissions annually. And, approximately 25% of Medicare patients hospitalized for CHF are re-hospitalized within 30 days of discharge. On average, Medicare pays \$15,000 in overall costs for heart failure admission without a readmission, and \$33,000 for an episode with a single readmission.

Therefore, if 800,000 patients are admitted for heart failure at a cost of \$15,000 for each admission, and, subsequently, 25%, or about 200,000 patients, are readmitted to the hospital at a cost of \$33,000, the total Medicare spend is \$18,600,000,000 per year.

However, assuming that home telehealth technology, like Panasonic SmartCare, can reduce both admissions and readmissions for CHF by a conservative 20%, the total Medicare spend would be reduced to \$13,824,000,000. Furthermore, a more ambitious 40% reduction in hospitalizations and readmissions would reduce readmissions to 72,000, resulting in an aggregate Medicare cost of \$2,376,000,000 per year. These are meaningful potential savings.

Notably, the most significant challenge uncovered by the Panasonic study was the lack of broadband Internet connectivity. In some cases, broadband was simply not available. But the most common reason for the lack of Internet was affordability. Our test subjects were predominantly elderly, poor, and urban; with all suffering from multiple chronic health conditions. Chronic conditions are common among those over the age of 65 – whether urban, or rural. Furthermore, low income and poverty are highly correlated to poor lifestyle choices that lead to the early onset of chronic conditions, well below retirement age.

These demographic cohorts – the elderly; the urban and rural poor, and others lacking the social capital to inform healthy lifestyle choices – are the very groups least likely to have broadband connectivity in the home. They simply can't afford it. And broadband can also help ensure that the 1,326 rural Critical Access hospitals in the U.S. can remotely tap into a variety of dearly needed specialty healthcare services currently only available in more densely-populated urban centers.

As detailed in the Panasonic White Paper, Home Telehealth solutions can have a significant positive impact by improving health outcomes and reducing costs. Excluding the cost of enabling hardware and service initiation, preliminary estimates indicate that as little as \$15 to \$20 per patient per month could potentially have a profoundly positive impact on the adoption and utilization of home Telehealth by low-income seniors. Use of the FCC Universal Service Fund to subsidize the connectivity costs of remote patient monitoring for society's most needy and deserving citizens, in both urban and rural populations, would be money well-invested.

Senator Dan Sullivan
Written Questions for the Record to
Mr. Rytting
“Advancing Telehealth through Connectivity”
Senate Committee on Commerce, Science, and Transportation

Question 1: In Alaska, telehealth is hugely important, as it is the primary way many people in rural areas are able to receive healthcare.

Some of our health facilities have reported interoperability problems with telehealth software and electronic health records (EHR) software. In addition to the problems caused by this lack of integration, we are also missing out on potential benefits of having fully integrated systems. Have you seen this interoperability problem in other areas of the country? If so, are there possible solutions to the problem?

Answer:

The interoperability of Telehealth Solutions with provider systems – such as Electronic Medical Records (EMR) and Health Information Management (HIM) systems – is essential to unlocking the potential of these innovative new technologies. However, the attainment of these objectives involves technical challenges, including standards for data aggregation, normalization, analysis, and exchange; the evolution of business policies, which may require the sharing of data sets held by competing stakeholders; complex workflow challenges; and regulatory issues, such as the issues surrounding the storage and management of Protected Health Information (PHI). For these reasons, and others, true interoperability represents a significant challenge.

But healthcare information technology challenges of similar magnitude have been faced before –and overcome. For instance, it was reported just this week that over 67% of the prescriptions written in the United States in 2014 were transmitted electronically over the Surescripts network. That’s over 6.5 billion electronic prescriptions – more than the number of financial transactions processed by American Express. Surescripts was created in 2001 to connect physicians with pharmacies. But it wasn’t until 2008 when the Surescripts electronic prescribing network was merged with a benefits network called RxHub – thus aligning the major stakeholder interests – did electronic prescribing really take off. So these things take time, but the benefits are tremendous.

Analogously, the growth and expansion of a emerging “connected health ecosystem” will begin to resolve the vexing challenge of Telehealth system interoperability. Like Surescripts, companies now creating large, technology-agnostic, analytics-driven Telehealth networks can support the standards and workflow processes required to facilitate system-wide interoperability, while innovators can rapidly create the edge devices, such as the wearable monitors & communications devices that optimize the user experience, and algorithms the power the analytic engines that support risk management & clinical decision support.

With reimbursement policy rapidly moving in the direction of Accountable Care – which requires care coordination across many settings, bound to outcome-based reimbursement – connected, interoperable technology becomes an absolute imperative.