



TESTIMONY

CHILDREN AND FAMILIES
EDUCATION AND THE ARTS
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INFRASTRUCTURE AND
TRANSPORTATION
INTERNATIONAL AFFAIRS
LAW AND BUSINESS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
TERRORISM AND
HOMELAND SECURITY

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from www.rand.org as a public service of the RAND Corporation.

Skip all front matter: [Jump to Page 1](#) ▼

Support RAND

[Browse Reports & Bookstore](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore [RAND Testimony](#)

View [document details](#)

Testimonies

RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies.

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).

Expanding the Use of Telehealth

Promise and Potential Pitfalls

Addendum

Ateev Mehrotra

RAND Office of External Affairs

CT-409/1

June 2014

Document submitted on June 5, 2014 as an addendum to testimony presented before the House Energy and Commerce Committee, Subcommittee on Health on May 1, 2014

This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.



Published 2014 by the RAND Corporation
1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665
RAND URL: <http://www.rand.org>
To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Email: order@rand.org

Ateev Mehrotra¹
The RAND Corporation

***Expanding the Use of Telehealth:
Promise and Potential Pitfalls
Addendum²***

**Before the Committee on Energy and Commerce
Subcommittee on Health
United States House of Representatives**

June 5, 2014

The subsequent questions and answers found in this document were received from the Committee for additional information following the hearing on May 1, 2014 and were submitted for the record.

Thank you Chairman Pitts, Ranking Member Pallone, and distinguished members of the Subcommittee for providing me the opportunity to respond to questions and expand further on my written and oral testimony of May 1. Although I received a number of questions in writing from the Committee following the hearing, I have answered only those questions for which I believe I have relevant expertise and important insights that might be useful to the subcommittee. My expertise is in the area of payment reform and the impact of delivery innovations on costs and quality in health care. I did not answer questions on topics for which I do not have particular expertise, e.g., those addressing privacy issues.

The Honorable Joseph R Pitts

QUESTION: What role can telemedicine play to facilitate new payment models?

QUESTION: What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?

ANSWERS: These two questions from the Chairman address the critical issue of payment reform. As I noted in my testimony, I believe that telehealth should not be defined narrowly as replacing face-to-face visits with videoconferencing. Instead, telehealth should be defined more broadly as using technology to deliver care in a mode other than a traditional face-to-face visit. In

¹ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of RAND or any of the sponsors of its research. This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

² This testimony is available for free download at <http://www.rand.org/pubs/testimonies/CT409z1.html>.

my written testimony, I highlighted many forms of telehealth that do not use a videoconference, such as messaging, phone calls, and remote monitoring. I provided those examples because I believe that these forms of telehealth have particular promise for addressing the triple aim – improving quality, decreasing costs, and improving access.

The question of how to define telehealth is relevant to payment reform because the current fee-for-service model relies primarily on payments for face-to-face visits. The focus on face-to-face visits has been echoed in the limited reimbursement available for telehealth, which generally focuses on videoconference visits between a physician and patient. The concern is that this encourages only a narrow form of telehealth.

I am not advocating that the Congress or the Centers for Medicare and Medicaid Services (CMS) determine a fee-for-service payment for each form of telehealth technology. Technology changes rapidly and any definition that specifies the type of technology runs the risk of being outdated very quickly. Rather, I believe that increased use of bundled payment and other global payment methods combined with rigorous quality measures are the best way to encourage appropriate and cost-effective use of telehealth.

This is best illustrated with an example. There is great promise for one form of telehealth - remote monitoring of patients in intensive care units. Instead of paying for this remote monitoring via a separate payment, I would advocate for two changes. First, I would shift to a single prospective payment for both Part A (hospital) and Part B (physician) payments for a hospital stay. The combination of Part A and Part B payments is being encouraged through CMS' Bundled Payments for Care Improvement initiative (Model 1), CMS' Acute Care Episode demonstration project, as well as private initiatives. I believe this should be implemented more broadly. Second, I would advocate for rigorous assessment of hospital outcomes. This is being currently done via CMS' Hospital Compare program, but right now the program only focuses on mortality rate for a few select conditions and procedures. Outcome monitoring should be implemented more broadly. The combination of these two changes, bundled payment and rigorous quality measurement, create an optimal environment for effective use of remote monitoring of intensive care units (and other forms of telehealth that involve hospitals). If these two changes are made and remote monitoring improves outcomes and decreases costs, then hospitals will shift on their own to use this form of telehealth. A separate payment is not necessary as it is in the hospital's best interests to pay for remote monitoring under these circumstances. It is important to emphasize that within this environment, hospitals will only focus on those forms of remote monitoring and telehealth that are proven to be effective. Also, this will encourage competition in the market among firms and

physicians that provide remote monitoring to lower their costs and demonstrate they improve outcomes.

The Honorable Joseph R Pitts

QUESTION: Can telemedicine raise the quality of service provided to patients? If so, how?

QUESTION: Can telemedicine lead to more patients receiving care without costly, unnecessary, and time consuming trips to their doctors? If so, how?

ANSWERS: The two questions from the Chairman are quite related. Most research has focused on whether the quality of telehealth is equal to a face-to-face visit. Relatively little research has examined whether telehealth can raise the quality of care. I believe the greatest potential for telehealth to improve quality is in the area of chronic illness care.

As many others have noted, the burden of disease in the United States has shifted from acute to chronic illnesses. Optimal management of chronic illness requires frequent check-ins by patients for monitoring of symptoms, laboratory testing, and adjustment of medications. Such check-ins can sometimes be quite short. Travelling to, and waiting in, a clinic for these check-ins can require a significant amount of a patient's time. The time required to do so and the costs of this time results in considerable drain on patients and employers due to lost time from work and, therefore, productivity. Not surprisingly, given these barriers, chronic illness care is suboptimal for many patients.

Many check-ins for chronic illness do not require in-person visits and can be provided by telehealth. For example, many health systems are implementing "virtual visits" via telephone or secure messaging to optimize chronic illness care and there is some evidence that such systems improve outcomes. Telehealth, in this instance, can improve compliance and management of chronic illnesses by deterring costly and unnecessary in-person visits.

The Honorable Joseph R Pitts

QUESTION: In healthcare, we've frequently seen new technologies promise to save money, but in reality creating a new way for providers to bill the Medicare program. How can we ensure that telemedicine actually does deliver the savings it promises?

QUESTION: In your experience, does fee-for-service Medicare – with its emphasis on paying for every service individually – create an intrinsic barrier to the value of telemedicine? Has Medicare Advantage been able to encourage its use?

ANSWERS: It is almost impossible in healthcare to declare whether a given technology is always high or low value. Value depends on the clinical circumstance. For example, coronary artery angioplasty is a life-saving and cost-effective intervention for some patients. For other patients, however, coronary artery angioplasty is overused – it does not improve outcomes at considerable societal cost. This pattern of both beneficial use and overuse is true for many other important technologies such as MRI machines or endovascular interventions.

This tension between beneficial use and overuse is applicable to different forms of telehealth technology. Indeed, overuse might be of particular concern with telehealth. The very advantage of telehealth, its ability to make care convenient, is also potentially its Achilles' heel. In this sense, telehealth could be "too convenient."

It is difficult for the fee-for-service system to account for the clinical scenario and whether it is a high value or low value use of the technology. By paying for the technology under all circumstances, the fee-for-service system can have the unintended consequence of encouraging overuse. Three types of checks have been put in place to address this unintended consequence. First, for certain new technologies, CMS and other payers have introduced coverage decisions where a technology will only be reimbursed under certain clinical circumstances or if the hospital is registered or certified as a Center of Excellence. In theory, these mechanisms encourage monitoring of the clinical circumstances in which the procedure is performed and therefore discourage overuse. Second, quality measures can be used as a check on overuse. For example, one commonly used quality measure monitors use of imaging for patients with back pain. The goal is to discourage overuse of MRI and CT scans. Third, payment methods such as bundled payment for episodes or total costs of care are used to discourage overuse. Because these payment methods do not pay for individual services, providers have more flexibility to decide on the most appropriate and cost-effective means of delivering care for a given patient and clinical situation.

One barrier to applying the fee-for-service system for telehealth is that it requires that each individual service be valued. This is extremely difficult. The current process for valuing services has garnered much criticism and telehealth services might be even more difficult to value from a practical perspective. For example, cardiology care can be provided via many telehealth technologies – email, phone call, store-and-forward, simple videoconferencing, and more complex telehealth visits that include remote stethoscopes or EKGs. These technologies obviously vary in their costs for providers and therefore if they were paid under fee-for-service they would have a different reimbursement. Yet, it may be impossible to set the valuations correctly and this will create distortions in which forms of telehealth are encouraged.

Because Medicare Advantage plans are paid under capitation, it is reasonable to believe such plans might be more likely to encourage cost-effective use of telehealth. I am unaware of any research that has compared the use of telehealth in Medicare Advantage plans vs. Medicare fee-for-service.