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**Evaluating the Potential of Telemedicine to Reduce
Hospitalizations of Nursing Home Residents**
President and Fellows of Harvard College
David Grabowski, Ph.D.
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Many costly hospitalizations of frail elders could be avoided if appropriate care were available in nursing homes. This study will test the promise of telemedicine to help nursing home staff consult with off-site physicians more easily. With the ability to see residents who are in another location, physicians could assess their need for hospital care or recommend treatments that the nursing home would be able to provide. Building on other Commonwealth Fund–supported work to decrease unnecessary hospital transfers of nursing home residents, the project will inform policymakers about a potentially cost-effective way to safely reduce avoidable hospitalizations for a vulnerable group.

Background: In New York State, more than 25 percent of all nursing home residents are hospitalized during the course of a year, and nationally a quarter of residents who have been discharged from a hospital to a nursing home are rehospitalized within 30 days. If nursing home residents had timely access to appropriate medical care, these numbers could be safely and significantly reduced, and Medicare would realize considerable cost savings. Changes to Medicare payment policy that are included in the new health reform legislation are intended to address the financial disincentives that prevent nursing homes from treating acutely ill residents on site, in part by rewarding facilities for lowering their hospital readmission rates.

Mechanisms need to be in place at the facility level, however, to ensure that resident safety and well-being are not compromised by new payment incentives. Telemedicine, which allows clinicians to consult with patients and their families via two-way video conferencing, offers one such mechanism.

The Project: Under the direction of David Grabowski, Ph.D., associate professor in the Department of Health Care Policy at Harvard Medical School, the project team will evaluate a telemedicine intervention (PhoneDOCTORx) in six Massachusetts nursing homes. The team will use a novel data source unique to Massachusetts, the Standard Ambulance Run Form, to obtain virtually real-time information about transfers from

nursing homes to hospitals. These data will enable the researchers to compare hospital transfers that occur during times when the telemedicine unit is operating with transfers that occur when it is not, as well as with transfers from 12 matched control facilities that lack a telemedicine arrangement.¹ The project team will:

- analyze the effect of telemedicine intervention on the frequency of hospital transfers;
- calculate the potential savings to Medicare from avoided hospital transfers; and
- undertake a cost-benefit analysis of telemedicine use in reducing nursing home-to-hospital transfers.

Study results will be shared with the policy and research communities through presentations at professional meetings and through two papers prepared for journal submission, one examining the link between use of telemedicine and the rate of hospital transfers, and another describing the cost-benefit analysis.

Expected Outcomes: This project will demonstrate for nursing home providers, payers, and state and federal policymakers whether telemedicine is a cost-effective way to safely lower the rate of hospitalization for nursing home residents. If this is demonstrated, wider use of telemedicine could lead to better health outcomes for the frail elderly and lower costs for Medicare and other payers. In addition, the findings will support another Fund-supported project, led by Joseph Ouslander, M.D., at Florida Atlantic University, that is preparing tools to help nursing home medical staff treat sick residents on site.

¹ PhoneDOCTORx will be covering the facilities on weeknights after usual work hours, until 11:00 p.m., and on weekends from 11:00 a.m. to 5:00 p.m.