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 An audio interview with Dr. Stuart Slavin is available at NEJM.org

Without question, my own successful recovery journey has made me a better physician. My newfound perspective, passion, and perseverance have opened up levels of compassion and empathy that were not previously possible. I still wear a scarlet A on my chest, but it

doesn't stand for "alcoholic," "addict," or "ashamed" — it stands for Adam. I wear it proudly and unapologetically.

When a colleague dies from suicide, we become angry, we mourn, we search for understanding and try to process the death . . . and then we go on doing things the same way we

always have, somehow expecting different results — one definition of insanity. It's way past time for a change.

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## Adopting Innovations in Care Delivery — The Case of Shared Medical Appointments

Kamalini Ramdas, Ph.D., and Ara Darzi, M.D.

Transformative innovations in care delivery often fail to spread. Consider shared medical appointments, in which patients receive one-on-one physician consultations in the presence of others with similar conditions. Shared appointments are used for routine care of chronic conditions, patient education, and even physical exams. Providers find that they can improve outcomes and patient satisfaction while dramatically reducing waiting times and costs.<sup>1</sup> Patients benefit from interacting with their peers and hearing answers to questions that may be relevant to them. Doctors avoid repeating common advice, which improves their productivity and enables higher-quality interactions with individual patients. Increased system capacity reduces waiting times even for patients who opt for traditional one-on-one appointments. Shared appointments have been used successfully for over 15 years at the Cleveland Clinic, in the Kaiser Permanente system, and elsewhere.

Shared service delivery isn't a new concept. Group interventions

are common for primary prevention (e.g., encouraging smokers to quit) and secondary prevention (e.g., helping patients with chronic obstructive pulmonary disease to avoid complications). Group-based programs such as Alcoholics Anonymous and Weight Watchers allow people to acknowledge that they have a problem and start working toward solutions. PatientsLikeMe connects patients to peers with similar conditions. Mental health support groups — for people with depression or anxiety, for example — are common. Yet these interventions are rarely led by doctors.

Given the effectiveness of group interventions, why aren't doctors routinely using them to treat physical and mental conditions? We believe four crucial components are missing: rigorous scientific evidence supporting the value of shared appointments,<sup>2</sup> easy ways to pilot and refine shared-appointment models before applying them in particular care settings, regulatory changes or incentives that support the use of such models, and relevant patient and clinician

education. Such enablers are necessary for any highly innovative service-delivery model to become standard.

First, like most delivery models, shared medical appointments aren't easily amenable to randomized, controlled trials. Patients like to decide for themselves how they'll see their doctor. And unlike a study drug and identical placebo, shared and one-on-one appointments differ visibly from one another.

In the social sciences, randomization is often impractical. Researchers can't randomly provide schooling to some children and deny it to others to estimate education's effect on earnings. Social scientists have cracked this selection problem by exploiting sources of "random" variation in the treatment variable. For example, whether a child's birthday falls before or after an arbitrary cutoff date often determines the age at which he or she can enter first grade. This policy creates random variation in years of education among children who drop out after the compulsory schooling

period, permitting analysis of the effect on earnings of an extra year of education.<sup>3</sup>

Similarly, in health care, researchers can't randomly assign hospitals to adopt or refrain from adopting electronic medical records (EMRs), and a correlation between EMR adoption and improved outcomes doesn't imply causality. But economists have taken advantage of a source of random variation in EMR adoption — state medical privacy laws — to show that EMR use reduces infant mortality.<sup>4</sup>

Contextual knowledge enables customization of care delivery. Shared medical appointments at a poor, inner-city health care facility will look different from those in a wealthier suburban setting: the two facilities might have different no-show rates, require different communication approaches, and need to address different opportunities for patients to make lifestyle choices. In-depth observational studies and use of patient-reported outcome measures that can highlight subtle contextual variation will allow health systems and individual physicians to tailor shared appointments to specific patient populations.

Although experimentation is more complicated outside the laboratory, innovative providers of “high-touch” services find ways to perform pilot studies of new delivery models or conduct simulations. Intuit, a U.S. company that provides tax software, traditionally relied on high-paid advisors to answer customers' questions. One year, two Intuit employees suggested setting up a website where customers could answer each others' questions —

a seemingly cavalier idea, given that clients can be jailed for filing their taxes incorrectly. Yet Intuit found a way to test this idea in a narrow submarket where there was little chance of contaminating its brand. The website was a success and is now available nationally, with features to minimize liability risk. It has essentially allowed Intuit to change the boundaries of its service — what the provider, the client, or another entity does to solve a client's problem.<sup>1</sup>

Shared medical appointments change the boundaries of health care services because fellow patients, rather than only the doctor, can provide information and support. The Aravind Eye Hospitals network in India is experimenting with shared appointments for glaucoma. Aravind first tested the concept without disrupting clinic workflow by offering shared counseling to patients who were waiting between tests during their regular glaucoma appointments. Seeing its potential, they ran two pilots with a doctor on a weekend, gathered feedback, and refined the concept. They then introduced shared appointments on Friday afternoons, when their workload was lightest.

Although firms routinely use simulation to preview how new delivery models will affect productivity and waiting times, simulation as a substitute for experimentation is underused in care delivery. When designing Terminal 5 at Heathrow Airport, British Airways used simulation to model how the number of self-service check-in kiosks would affect waiting times at manned check-in desks. Similarly, simulation can show how the number of weekly

shared appointments at a clinic will affect waiting times even for patients attending traditional one-on-one appointments.

With any new delivery model, regulation and participation incentives influence uptake. E-learning allows universities to expand their reach, but professors may balk at new teaching methods. To address their hesitation, some universities reward faculty for developing online content. Clinicians managing shared appointments can often charge payers for each patient at the same hourly rate used for one-on-one appointments. Advertising this incentive should increase uptake.

But even with adequate incentives, providers worry that patients may reject new care models. Once there is solid evidence supporting shared appointments, regulators can make them standard for certain conditions, while allowing one-on-one appointments for individual patients as needed. Sweden has implemented substitution of generic for brand-name drugs, but providers can request reimbursement for brand-name versions for specific patient needs. Single-payer systems or government insurance programs could use a similar approach for encouraging shared appointments. Charges for shared appointments could then be adjusted in order to distribute the savings they generate between payers and providers.

Finally, patient education could stimulate interest in shared appointments. Businesses that can profit from changes in customer behavior invest in client education. Even for mundane tasks such as using automated checkout machines at the grocery store, offering initial assistance accelerates

adoption. Education can also help clients adjust to new delivery modes and locations. Offering a single trial of a service — such as a new type of fitness class — can dramatically influence a potential customer's adoption.

When altering an interaction as unstructured and personal as a doctor visit, patient education is critical. Many patients may hesitate to participate in a shared appointment for their annual physical, imagining that they would meet fellow patients in their underwear. In fact, in a typical shared physical for female patients at the Cleveland Clinic, the doctor performs pelvic and breast exams and discusses test results with

each patient in private. The remainder of the appointment is conducted as a shared appointment. By sitting in on shared appointments as unbilled observers, patients can experience for themselves the less tangible benefits of peer interaction.

Doctors also need education. Large health care organizations could experiment with new care models and invite doctors within their system to observe and learn.

Indeed, these needs apply to all new delivery models: to accelerate their adoption, we will need to embrace new strategies for collecting evidence on their outcomes; find safe, quick, and cheap ways to experiment; offer

incentives to providers; and educate stakeholders.

Disclosure forms provided by the authors are available at [NEJM.org](http://NEJM.org).

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## Patient Inducements — High Graft or High Value?

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In May 2016, Uber announced a partnership with the Southeastern Pennsylvania Transportation Authority (SEPTA)<sup>1</sup> to provide discounted ride-sharing services to “bridge the first and last mile gap” and encourage people to ride the regional rail system. It was a potential win for all — increased ridership for Uber and SEPTA, decreased traffic and pollution. The partnership was lauded for testing an innovative way to advance social goals.

Contrast this partnership with one that might be arranged in health care. For instance, a partnership between a health system and a ride-sharing service to provide free rides for patients with transportation barriers might help elderly patients with disabilities or those with limited transporta-

tion options get needed care.<sup>2</sup> However, it might be illegal.

Two federal laws prevent health care providers from using inducements to increase demand for care or encourage selection of one provider over another. Under the Anti-Kickback Statute, no provider or institution receiving federal dollars can offer anything of financial value that may increase referrals for either their publicly or privately insured patients. Violators risk criminal penalties and substantial fines per kickback under the Civil Money Penalty Law. That law allows some incentives for care, a “nominal value exception” of no more than \$15 per item or \$75 per year per patient. Triggers for investigating fraud have a low threshold: increasing referrals doesn't have to be the primary

reason for providing the service or good — it just needs to be one possible reason or consequence.

But two recent changes in health care invite new thinking. First, these laws were enacted when health care financing largely involved patients who receive care, physicians and hospitals who provide care, and insurance companies (and the government or employers behind them) who pay for care. The same stakeholders exist today, but rearrangements in how the money flows have changed who is at financial risk for what. For example, as the financial risk for care is redistributed toward providers with bundled payment and readmission penalties, it makes less sense to retain harsh penalties for inducing patients to seek care.