It's Time to Reinvent the Physical Exam

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22 COMMENTS

In the technology-thick landscape of modern health care, the physical exam remains in a backwoods.

Sure, there have been advances—blood-pressure cuffs, for example, now inflate themselves—but on the whole the exam has barely changed in the past century. Patients still open up and say "ah," take deep breaths and gaze at a tiny light peering into the back of their eyes.

A well-done exam can still determine whether an irregular heartbeat or potential cancer is detected or whether a radiologic test is necessary. Physician and author Abraham Verghese, an eloquent defender of the physical exam, says that the act of laying hands on patients is itself also a powerful ritual that can seal the patient-physician relationship, bringing comfort and trust. And he is right.

But the physical exam needs a makeover—one that upgrades the tools used to make a diagnosis while preserving the touch and intimacy of this ritual.

Technology is part of the answer. We know, for example, that the traditional prostate exam provides an unreliable estimate of prostate weight, compared with an ultrasound. The iconic stethoscope could also use an upgrade, as two Johns Hopkins colleagues and I wrote this year in JAMA. Outfitted with a microphone and connected to software that could interpret the heart rhythms, the next-generation stethoscope could help physicians to identify abnormal heart sounds with greater precision than today. With high-tech goggles that track minuscule eye movements—a technology that already exists—we can tell whether a dizzy patient has an ear infection or is having a stroke. In an age of wearable health apps and remote patient monitoring, physicians might mine historical patient data to deliver more precise, personalized care, enhancing their diagnoses and therapy recommendations.

But such technologies are only pieces of the puzzle.

In our personal lives, we can afford to download a hodgepodge of apps, try them out, and see which ones stick. It's OK if they don't work together. That's not the answer for redesigning the physical exam. Physicians cannot spend their precious time typing in multiple passwords and open up a dozen screens, then try to piece together a patient picture from these fragments. They have scant time for these exams already.

To realize the potential of these technologies to improve care, they need to be integrated onto a platform that is unified around a common purpose: the most thorough, accurate and patient-centered

exam we can deliver. Rather than interacting with different screens, they could turn to one platform that receives inputs—from devices, pharmacy records, health apps, the physician's observations, patient-entered information and other sources—and then presents a unified picture of a patient's health, helping physicians to make connections between different types of data to make the best diagnosis and treatment.

A common (and accurate) criticism of modern health care is that clinicians spend too much time looking at their computers—treating the so-called iPatient—rather than laying on hands, touching the flesh-and-blood person on the exam table or hospital bed. Yet technology itself need not be the enemy of hands-on, intimate, comforting medical care. The problem is the hodgepodge way that our health-care system has introduced technology, which has improved neither patient care nor productivity, and obstructs close contact with patients. If we can bring together patients, clinicians, engineers, industry and other players, we can reinvent and reclaim the physical exam to further heal and comfort patients.