



**Bob Monteverdi, M.D.**  
Global healthcare solutions leader, **Lenovo Health**

# Virtual Care Platforms Offer Promise of Improved Medication Adherence

Behavior modification isn't simple, but the effectiveness and reach of virtual care solutions can help

All of us are creatures driven by habits, both positive and negative. We start the New Year resolved to eat healthier and exercise more, but within a few weeks we've often abandoned the gym for the couch once again.

Knowing that your health depends upon new routines doesn't make adopting them any easier. There's growing evidence, however, that technological advances in the virtual world can spur lasting behavior changes in the real one. That could have profound clinical and financial consequences, particularly when it comes to medication adherence by those coping with diabetes, asthma and other chronic illnesses.

## The clinical and economic impact of non-adherence

Poor medication adherence is common. Some 20 to 30 percent of prescriptions are never filled, and about half aren't taken as prescribed.<sup>1</sup> The clinical and economic effects are dramatic.

- Non-adherence is estimated to cause at least 10 percent of hospitalizations and 125,000 deaths each year.<sup>2</sup>
- The adjusted cost per patient of non-adherence across 14 disease groups—including cancer, cardiovascular disease, osteoporosis and respiratory conditions—ranges from \$949 to \$52,341 annually.
- Annual adjusted costs per patient for diabetes alone have climbed as high as \$9,819.<sup>3</sup>

The problem is multi-faceted. Patients fail to take the right drug at the right time in the right dose, either intentionally (e.g., concern about side effects) or unintentionally (e.g., confusion about the regimen). Like adherence to New Year's resolutions, the key to keeping on track is focusing on the individual's unique needs and motivations.

An adherence strategy that encompasses medication compliance should be patient-centered, which means accounting for social, cultural and economic factors. One of the most promising areas for this kind of holistic approach involves targeted education coupled with involving behavioral support and reminders.

## Virtual care offers new capabilities

That's where virtual care comes in. While each patient can't have their own personal pharmacist at home with them, a virtual health coach or virtual care coordination nurse can target habit formation and behavior modification that's personalized for each patient. And it can do so at scale.

Virtual coaching platforms help health professionals make care decisions, assist patients with real-time decisions of their own and/or connect them to a doctor. Clinician and patient decisions can be personalized via algorithms tailored to individual treatment goals and personal preferences.<sup>4</sup> But technology is a tool, not a magic wand, so it's important to select the right product for the right purpose.

## Putting potential solutions to the test

One way of evaluating potential virtual care solutions goes by the acronym SURE. That stands for Science, Usability and RReturn on investment.

- **Science.** Text messaging, telemonitoring and web-based software all offer advantages and disadvantages, but each should be evaluated within the context of persuasive design—a validated model popularized by Stanford's BJ Fogg. In brief, that means effective technology should help with the patient's motivation and ability to perform the desired behavior, as well as triggering that behavior at the right time.<sup>5</sup> So, for instance, monitoring can be linked with personalized feedback based on individual health goals.

- **Usability.** A successful digital health solution must be sensitive both to what technology consumers will use and how they want to use it. In a 2018 Accenture survey, 57 percent of respondents said they'd likely use an "intelligent virtual coach." Fifty-five percent would likely use "an intelligent virtual nurse that monitors your health condition, medications and vital signs at home."<sup>6</sup> However, usability can't be taken for granted. Consumer-facing solutions should include familiar terms,

clear explanations of complex concepts and humanization that encourages consumer participation.<sup>7</sup>

**Return on investment.** Innovative solutions that reinvent chronic disease management as a digital service are proliferating. As yet, however, no single approach or technology has proven itself superior. Protecting the organization's return on investment requires rigorous scrutiny of each product.

Behavior modification isn't simple, but the effectiveness and reach of virtual care solutions can help. At a time when patients are more willing than ever to embrace digital health technologies, the opportunity to improve clinical and financial outcomes is significant. But before embracing any product, first be SURE. **HI**

## ENDNOTES

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