COACHCARE

DIGITAL HEALTH TECHNOLOGY

Your Clinic. Your Future.

Exploring the Impact of Virtual Health Care Technology on Clinical Practices

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01 INTRODUCTION

Digital health, virtual health, advanced medical technologies, disruptive innovations – whatever you call it, digital health technology is now an essential part of best practice in health care. These information and communications technologies offer clinicians and patients an unprecedented capacity for exchanging medical information. They represent a paradigm shift in how medicine is practiced, with a focus on improving outcomes at the same time as enhancing convenience and workflow. Ultimately, digital health technologies support greater patient engagement, satisfaction and retention, making it a game-changer for all clinics, whatever their specialty.

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Digital health technologies have the capacity to identify potential problems before they arise, which enables clinicians to shift their focus to preventative care and comprehensive wellness strategies. Downstream, this helps to lower health care costs while enhancing the relationship between patient and clinician.

Greater accessibility to information through use of digital health technologies also shifts the doctor-patient dynamic to a partnership that encompasses some shared decision making and mutual responsibilities – in essence, such technologies help give every individual a greater chance of robust health at every stage of life.

Interventions are now more widely recognized than ever as having enormous potential to improve health and healthcare delivery by improving effectiveness, efficiency, accessibility, safety and personalization of medicine.

In this paper, we offer an overview of the status of digital health technology and offer insights into how these technologies have revolutionized the meaning of success, adding value to current services to increase revenue, retention, and referrals while always keeping best practices and patients' best interests at heart.

02 DIGITAL HEALTH TODAY

To date, the potential of digital health technologies has scarcely been realized. In part, this is because of concerns over the scalability of such interventions. However, much of the delay can be ascribed to entrenched ideas around research methodologies and regulatory bodies' approval timelines that can see innovative technologies languish for years, or even decades, only to prove obsolete and outdated once finally approved.

Naturally, those individuals and companies adopting digital health technologies must take into account the rapidly changing wider technological landscape. However, rather than fear this ongoing evolution, those companies who acknowledge and embrace the exciting potential for innovation are the ones leading the charge in digital health. It is only by adopting a new approach to health care, with an aim to solve real-world problems, that digital health technology will fulfill its promise to dramatically improve the delivery of clinical and social care.

Perhaps predictably, many patients are far ahead of standard health care when it comes to engagement with digital health technology. Over 44 million mobile health applications were downloaded in 2015 alone within North America, demonstrating patient demand for digital health technologies.[1]

Unfortunately, the wider health care industry has historically been slow to embrace digital technologies, bogged down by tired research methodologies that are insufficiently adaptive in the modern era. In the last few years, however, things have changed quite dramatically: 2017 was a record-breaking year for digital health, with venture funding approaching $6 billion, more than double that of 2014.[2] What's more, e-health investments are estimated to reach $308 billion in 2022 in the US, largely because more than half of the US population (around 117 million people) suffer from at least one chronic condition requiring routine monitoring.[3]

Recent technological achievements have revolutionized clinical practice, enabling increased capacity and care for patients and affecting every level of health care, from prevention through to diagnosis, and from monitoring to management of chronic disease. Technologies that are customizable and easily integrated at little cost promote increased patient engagement in self-management and improved communication between patients and physicians. Dozens of large-scale digital health projects have been carried out across Europe, as well as in the US, Canada, and farther afield. What's more, Israel now boasts the first fully digitized national health care service and continues to innovate and demonstrate the vast potential of this sector to empower citizens.

Digital health solutions incorporating smartphones, tablets, and standalone devices offer effective, cost-effective, safe, and scalable interventions to promote healthy behaviors. Targets include smoking cessation, healthier eating, safer sex, physical activity, and a reduction in sedentary behaviors. Other technologies focus on improving cardiometabolic risk factors, and enable vastly improved management of blood glucose, pain, mental health, and somatic issues. Over 40% of physicians already recognize the benefits of using digital technologies to track patient progress and

[1] Juniper Research. (2017). Digital Health: Vendor Analysis, Emerging Technologies & Market Forecasts 2017-2022. Available: https://www.juniperresearch.com/researchstore/iot-m2m/digital-health/vendor-analysis-emerging-technologies
[2] Rock Health. (2017). Digital Health Venture Funding. Year in Review. 2017. Accessed May 1st, 2018. Available: https://rockhealth.com/reports/2017-year-end-funding-report-the-end-of-the-beginning-of-digital-health/
[3] Grand View Research, 2017

improve communication between patients and health care professionals. Some 47% of physicians who owned a smartphone reported having used the device to enhance education by showing patients images and videos.[4]

Physicians are also significantly more aware of the benefits of providing patient portals to communicate with patients and enable greater involvement in self-management. These secure messaging platforms also facilitate remote monitoring of patients for improved outcomes.

Scalable and innovative digital health technologies represent an incredible opportunity to reform healthcare systems, building in greater efficiencies and benefits for patients. The sheer volume of data collated through use of these systems offers unprecedented insight into clinical and epidemiological queries that is simply not possible using standard research methods.

The World Health Organization (WHO) published a report in 2011 on mobile health technologies which concluded that such technologies have already changed and will continue to change the lives of millions of people around the world.[5] Such technologies provide an opportunity to bridge the gap between in-person clinical care and outpatient care, allowing patients to self-monitor and self-manage while enjoying the ongoing support of a full health care team even when away from the clinic.

Digital health technologies have been touted by some as having the same potential to disrupt health care as the discovery of antibiotics.[6] Some experts estimate that better use of digital technology could generate efficiency gains of 6-10% in the British health care system and save as much as $17-28 billion in the US each year.[7]

Of course, there will always be some fear mongering and claims that technology will see clinicians replaced by robots. The reality, though, is that by promoting improved engagement and understanding between clinician and client, digital health technologies support greater patient access, satisfaction, retention, and the likelihood and ease of referrals. The result? Ever greater numbers of clients seeking preventive and long-term health care through engagement with those clinics that demonstrate an ability to successfully incorporate digital health technologies.

Technologies empower clinicians to spend more time practicing medicine and building rapport with patients, freeing them from mindless data collection and administrative tasks and putting the focus back on empathy and engagement. As such, it is essential that the digital health technologies available to clinics and practitioners seamlessly integrate with effective workflow and incorporate tools that collate, analyze, and present data in a way that is quick and easy to understand.

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[4] http://manhattanresearch.com/News-and-Events/Press-Releases/Digital-Tools-to-Boost-Patient-052914

[5] World Health Organization. (2011). mHealth New horizons for health through mobile technologies. Available: http://www.who.int/goe/publications/goe_mhealth_web.pdf

[6] Rosenberg, L. (2012). Are healthcare leaders ready for the real revolution? J Behav Health Serv Res, 39:215-9.

[7] Helbing, D. (2015). The automation of society is next: How to survive the digital revolution. North Charleston, SC: Createspace.

03 EXPLORING YOUR CLINIC'S PAIN POINTS

In a rapidly changing health care system, patient engagement and retention remain key to a clinic's success. Patient attrition and churn can make or break a clinic, especially in an increasingly competitive and fragmented market where it is often hard to attract new patients and satisfy those currently being served.

Many clinicians struggle to find enough time to stay up to date in their field while maintaining compassionate and engaged relationships with patients. For clinics small and large, these resource concerns make the idea of engaging with new technology seem like a non-starter. The truth, though, is that the right digital health technologies can reinvigorate a practice, automating many arduous administrative tasks and making day-to-day management straightforward and streamlined. And, most importantly, digital technologies offer unparalleled opportunities to support patients in their journey to better health.

The most successful health care practices focus their efforts towards enhancing patient engagement and the patient-clinician relationship. By improving efficiencies in the clinic, clinicians are free to spend more time practicing medicine and getting out ahead of patients' issues. The result? Vastly improved patient engagement and satisfaction, improved patient retention, and natural, organic increases in referrals and revenue.

Technology can feel intimidating and out of reach, especially for smaller clinics with a smaller budget. The right kind of digital health technology quickly pays for itself, however, and can be seamlessly incorporated into existing practices to enhance daily operations and patient care.

Clinics that adopt patient-friendly technologies demonstrate their commitment to patient success. Companies such as CoachCare combine the latest technologies with easy-to-use, intuitive, and beautiful design to create a seamless work environment for clinicians and an accessible and empowering platform for patients.

Sophisticated technology is technology that patients and clinicians find easy to navigate and that has a comfortable simplicity. The best digital health interventions make sure not to overload users with extraneous features and instead make life easier for both the patient, clinician, and support staff.

Digital health technologies also offer opportunities for additional revenue streams via integration with wireless digital scales and activity trackers as well as third-party devices. These devices provide valuable real-time data to clinicians, enabling greater opportunities for monitoring, assessment, and intervention as needed. Real-time data gives clinicians a clearer view of their patients' struggles and successes, creating a unique environment in which to identify barriers and focus on strategies that work well for each individual patient. The result is not just a better outcome for patients, but improved satisfaction for clinicians as they can feel confident in providing the best tools and treatment possible.

Digital health technologies can also help automate time-consuming yet mandatory administrative tasks. Regulatory compliance is something of a moving target in health care, making it a serious drain on administrative resources for many clinics, especially those with a smaller staff. CoachCare makes it easier for clinics to achieve and maintain HIPAA-compliant reporting, patient data collection and even patient scheduling.

When clinics make use of progressive digital health technology they have access to sustained insight into a patient's life beyond the clinic environment. These technologies foster a deeper, more meaningful connection between patients and providers, and offer unparalleled benefits for patient retention, more referrals and, ultimately, increased revenue.

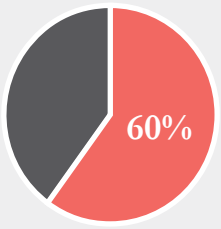
Personalized, predictive health care is the future. Digital health technologies help clinics to simplify complexities in care and inspire positive change in patients. With the right virtual health care environment, clinicians can enhance the overall care experience, improve patient satisfaction and retention, boost patient referrals, increase reactivation of lapsed patients, and bring online additional income streams while increasing efficiency and competitive advantage.

2017

A Record Breaking Year for Digital Health

Here's What We've Learned

>40% of physicians recognize the benefits of using digital health technologies to track their patients' progress.



When offered access to portals, **60%** of patients use them, while **65%** of patients not offered portal technology report wanting to use them.

In one review, **10 out of 12** randomized controlled trials reported that digital health interventions significantly improved several health outcomes in patients with chronic disease.

04 ENHANCING THE PATIENT EXPERIENCE

As we have seen, digital health technologies help to advance a clinic's goals in a multitude of ways. One of those goals is, of course, to better support patients' health. As part of their health care experience, patients increasingly expect clinicians to make use of digital technology and, indeed, prefer them to do so. In one report, 91% of chiropractic patients said they were more likely to choose a chiropractor who uses multimedia patient-education materials over one who does not.[8]

Clinicians and coaches can help improve their patients' outcomes through appropriate use of smartphones and tablets in consultations. Patients are universally familiar with these devices and can gain significant insight by being shown animations and images as their clinician explains their condition, the effects of treatment, and the risks of cutting short treatment before an issue is fully resolved.

Clinics also gain by providing access to patient portals. These are secure Internet-based technologies that offer patients the ability to log in and access their program metrics, schedule appointments, communicate with their health care team, and access additional information and educational materials. As a self-service technology, patient portals empower patients while freeing clinicians to spend more time practicing medicine.

A recent survey found that almost 80% of patients of chiropractic clinics had not been offered access

[8] Software Advice. (2015). Accessed May 1, 2018. Available: https://www.softwareadvice.com/medical/industryview/chiropractic-digital-tools-report-2015/

to a patient portal or were unaware of the existence of such technology. When offered access to these portals, some 60% of patients use them, while some 65% of patients not offered portal access report wanting to use such technology.[1]

Patients of chiropractic clinics with access to portals predominantly use them to view their health records (31%).[1] A quarter of patients use portals to schedule appointments, and 17% report using portals to view videos and follow-up exercises, thereby enhancing progress by maintaining engagement with treatment outside of clinic visits.[1]

With patient portals, patients are also able to view their clinicians' or coaches' availability and automatically schedule appointments 24/7. On the right platform, messaging between patients and clinicians remains HIPAA compliant, providing reassurance that patients' data remains private and confidential.

Digital health technology enables patients to easily log food intake, physical activity, and other health parameters, with platforms such as CoachCare seamlessly integrating with clinics' own meal plans.

Digital health technologies can offer real-time or periodic symptom assessments, pre-programed reminders, and feedback tailored specifically to each patient. CoachCare technology uses data analytics to send real-time, actionable alerts to clinicians to let them know when patients require intervention. This amplifies the connection with patients between visits, demonstrating ongoing and empathic attention. Instead of feeling 'out of sight, out of mind', patients feel a sense of continuous support, empowering them to stay motivated for improved outcomes.

Systematic reviews have found that digital health technologies are associated with significant improvements in self-management of key symptoms of long-term conditions including diabetes mellitus, chronic lung disease, and cardiovascular disease.[9] In one systematic review, 10 out of 12 randomized controlled trials (RCTs) reported that digital health interventions significantly improved several health outcome in patients with chronic disease.[10]

[9] Whitehead, L., & Seaton, P. (2016). The Effectiveness of Self-Management Mobile Phone and Tablet Apps in Long-term Condition Management: A Systematic Review. J Med Internet Res, May 16;18(5):e97.
[10] Lee, J.A., et al. (2018). Effective behavioral intervention strategies using mobile health applications for chronic disease management: a systematic review. BMC Med Inform Decis Mak, Feb 20;18(1):12.

05 DIGITAL SOLUTIONS FOR SPECIALTY HEALTH CARE

Digital health technologies offer significant support sectorwide. It is worth noting, however, the particular rise of weight and lifestyle management programs within various specialty clinics, and the success of digital interventions adopted by these clinics.

For instance, several chiropractors today have specialized training in health and wellness which can include weight loss and diet. Others see patients who have spine problems such as back or joint pain, where obesity is causal, or at minimum, a contributing factor. In addition, obesity is highly connected to pain, and reducing pain can greatly improve obese patients' quality of life, so there is a weight/pain focus for many Pain Management clinics. Given the overlap between obesity and health issues such as chronic pain, infertility, diabetes and more, many specialty clinics stand to gain substantially by using digital solutions to empower their patients to achieve and maintain a healthy weight and lifestyle.

Standard weight management and wellness programs within specialty clinics rely on patients retaining knowledge and maintaining motivation and engagement outside of the clinic. As many clinicians and patients know, engagement atrophies rapidly increase once a patient leaves the clinic, and research shows that patients forget 40-80% of what they have heard during a session.[11]

Digital health technologies provide an unparalleled opportunity for patients to access and provide patient information at home in their own time. As previously mentioned, these platforms help to reinforce treatment goals and strengthen the bond between clinician and patient.

Additionally, many specialty clinics specifically face challenges with patient retention. In part, this is because successful treatment typically hinges on consistent weekly or monthly visits. Patients may cut short their care plan once they begin to feel better, without understanding why the longer-term care plan is so crucial.

[11] Kessels, R. P. C. (2003). Patients' memory for medical information. Journal of the Royal Society of Medicine, 96(5), 219–222.

Research shows that a staggering 40% of patients stop their chiropractic treatment plan after just 10 sessions, and 59% stop going regularly.[8] 8 Patients tend to view chiropractic treatment as something akin to emergency medicine. Digital health technology keeps patients engaged and active in their programs longer, and gets them back to the clinic more often for appointments and checkups.

Additionally, one of the major challenges facing patients with chronic pain is how to communicate their symptoms to their clinician. Pain is hard to describe and even harder to recollect after the fact, meaning that important information is all too easily underreported and overlooked when communication is infrequent between patient and doctor. Real-time reporting and the use of 3-D body mapping allows the patient to pinpoint where and when they experience pain and to rate that pain on a consistent scale. With these simple tools, patients are empowered to log pain and other symptoms as and when they arise, which gives clinicians a vastly improved view of their patient's struggles and needs.

Pain-tracking software offers the clinician considerable insight into trends in pain management for each patient, which removes the need to spend a large proportion of each clinic visit establishing rudimentary data. This frees the clinician and patient to engage in a more nuanced and focused discussion which leads to improved care and more successful pain management.

Patient portals also allow patients to opt into remote monitoring, thereby enabling their health care team to be alerted to potential problems such as escalating pain and increased use of relief medications. Given the current opioid crisis, such measures can literally be lifesaving. And, on a larger scale, anonymized data collection can help clinics, and the whole sector, to identify potential problems in systemic health care practices, facilitating more incisive and targeted strategies to improve pain management.

The advantages of digital health technologies go far beyond those examples given above. Sector-wide, these technologies are fundamentally reinventing the practice of and access to health care: digital interventions help to lower costs and expand access to underserved populations; foster increased patient engagement, retention, and referral; enhance clinician satisfaction and pride; and help to improve quality of care for all patients.

ABOUT COACHCARE

The CoachCare technology platform powers health clinics across a number of specialties, including weight loss, pain management and chiropractic care. A custom-branded mobile app, coach dashboard and connected devices combine in one integrated platform to improve patient care and increase clinic revenues.

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