

CHEAT SHEET

for the entire health care ecosystem

Digital Therapeutics

Evidence-based treatment from your smartphone

Published – April 2022 • 10-min read

Key takeaways

- Digital therapeutics (DTx) are scalable software solutions built on clinically-proven approaches to behavior change that can be used for long-term disease prevention and management.
- Many DTx solutions are independent treatments that don't require constant provider intervention, enabling a one-to-many treatment approach.
- By involving patients directly in the management of their own care, DTx can promote higher levels of patient activation and foster meaningful behavior change over time.

What is it?

Digital therapeutics (DTx) are scalable software solutions that deliver evidence-based therapeutic interventions to prevent, manage, or treat chronic condition or disease. DTx solutions can be apps or other online platforms that give tailored recommendations based on diagnoses, symptoms, and treatment plans. Depending on their needs, one patient could use a DTx platform for behavioral health support, while another records their chemotherapy side effects or glucose levels. Digital therapeutics can be standalone, or used as a complement to existing medication, connected health devices, and other therapies to optimize patient care and health outcomes.

The digital health ecosystem has seen a flood of new, consumer-focused technologies over the last decade, and digital therapeutics are among the latest technologies in this space. They work in conjunction with and borrow components of its preceding technologies, including remote patient monitoring (RPM), telehealth, and digital apps. Similar to RPM, digital therapeutics rely on devices to track clinically relevant metrics. However, DTx go a step further, collecting and discerning meaning from data points to educate patients on how their behaviors impact their health and disease outcomes.

Two types of digital therapeutics

Complements to traditional therapies

May be paired with medication, connected health devices, or other therapies to provide adherence support or personalized treatment recommendations

Replacements to traditional therapies

Can be used independently of other therapies. They may replace a therapy typically provided by a clinician, or be used for preventive measures

1. Inpatient care management relies more heavily on RNs and social workers to staff their programs.

Why does it matter?

Digital therapeutics are on a rapid growth trajectory. Its market valuation, once sized at \$889 million in 2017, is now expected to exceed \$32.5B by 2030. With 270 million users of DTx interventions projected by 2024, it's clear that this is a space ripe for engagement and investment.

Beyond mass market potential, digital therapeutics also aim to improve clinical outcomes at low cost and through a new format. While many digital therapeutics include some element of back-end support or monitoring, they are independent treatments that don't require constant provider intervention, enabling a one-to-many treatment approach. As such, DTx help to *extend* the reach of the provider beyond the four walls of a hospital without adding an additional time burden for monitoring and constant intervention.

Not only do they extend the arm of the provider, but DTx also shift care delivery from reactive, acute care to preventative, whole person care delivery—this is increasingly important as more providers move towards a value-based care world. Digital therapeutics are promising for a variety of disease states and help to manage chronic conditions before they become costly acute situations. In some cases, they may even be able to slow the onset of a condition from becoming chronic in the first place.

How does it work?

Digital therapeutics are available across smartphone platforms, and they can provide scalable access to evidence-based treatments at the population level. Some DTx interventions are sold directly to consumers, while others are over-the-counter or require a prescription.

The use cases for digital therapeutics range across chronic care interventions. There are interventions for respiratory conditions like asthma and COPD; cognitive disorders such as dementia or ADHD; diabetes and prediabetes management; behavioral health; and even oncology. Across all of these, DTx products also provide new sources of clinically-relevant data—which, when layered with analytics, can be used to inform risk stratification, improve disease management, and measure health outcomes.

By involving patients directly in the management of their own care, digital therapeutics can promote higher levels of patient activation and foster meaningful behavior change over time. This enables new opportunities in population health management, as these products can scale access to existing treatments, target unmet patient needs, and allow both patients and providers to track and analyze clinically-relevant metrics. The framework below highlights just several of the ways we can expect to see DTx take shape in the population health framework in years to come.

How DTx enables population health management

Identify populations

- Aggregate patient data
- Risk stratify
- Attribute patients

Map and track care

- Identify chronic conditions
- Close gaps and deliver proactive interventions
- Registries

Deliver cross continuum care

- Team-based, patient-centered care
- High risk care management
- Care coordination
- PAC¹ patient tracking

Engage patients

- Opportunities to engage
- Modes of engagement

Administer, monitor, report

- Evaluate target outcomes
- Refine populations and interventions
- Rebalance program resources

1. Post-acute care

Conversations you should be having

In a field where workforce shortages are projected to reach 120,000 for physicians in 2030 and 1.2 million in nursing vacancies by 2035, digital therapeutics are poised to be a key element in alleviating provider strain and improving patient health outcomes. Below are five key thoughts for health care organizations to keep in mind as they explore DTx solutions and opportunities to engage patients and providers across the care continuum. ▼

01

Always keep the patient experience in mind. Define potential obstacles to utilization, such as lack of device access, digital literacy, or patient accessibility.

02

Scope your organization's use case for digital therapeutics, whether complementary or competitive with existing therapies.

03

Identify what evidence is needed to get providers and patients on board with digital therapeutics. Evaluate vendors for clinical efficacy, investment value, and user experience.

04

Consider how to embed digital therapeutics into prescribing, data, and analytics workflows.

05

Collaborate and train clinical teams to incorporate digital therapeutics in care delivery.

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