

Patients navigating medication treatment following a diagnosis often find themselves overwhelmed and isolated as they begin the journey toward managing a newly diagnosed condition or juggling multiple therapies. They struggle to find a path forward that will empower them to manage their therapies in relevance to their life. But moving from diagnosis to enlightenment isn't an easy process nor one that has typically received much support from healthcare systems. The interaction focuses squarely on providing patients access to care services, with support and guidance often absent or secondary in the process. This lack of support creates a depth of emotions that can be hard to surpass.

Following a pattern developed by Gartner for technology adoption, analysis shows that patients follow a similar pattern after a diagnosis. This process has been coined the 'patient activation cycle' and can take days or weeks for patients to move through with high risk of patient drop off. But new programs that connect human support with digital health tools are helping to reduce fears and hesitancy, and help patients move swiftly from awareness to engagement.

CREATING ENGAGED PATIENTS WITHOUT LOSING MOMENTUM

Helping to move patients from the reality (and shock) of a new diagnosis to become engaged and active participants in their health isn't a natural progression. For many patients, the initial diagnosis can become one of many chronic conditions or issues they are trying to manage. The new condition now adds a layer of complexity to existing health issues or additional stressors into their daily lives. It creates questions of managing new medications, the impact of side-effects, additional financial challenges, and how a new treatment might impact a patient's full life. For more complex conditions or chronic care, adding a new medication regimen means reimagining daily life and sorting through the physical and emotional aspects of relying on a medication to function.

- **According to the West Health Institute, 44% of patients don't seek medical care when sick or injured each yearⁱ. In addition, 30% of patients diagnosed with an acute or chronic condition don't fill their medication. This inaction threatens patients' health and adds an estimated \$290 billion annually in additional costsⁱⁱ.**
- **The number one reason patients put off seeking care and taking medication is fear. That fear stems from a wealth of emotions about suffering through a condition, feelings of loneliness, worries of being a burden on loved ones, and thoughts of missed opportunities due to illness.**

But a key element in helping patients become engaged in their health and treatment is by recognizing them as people – not simply patients who are experiencing a medical issue. While patients present to a provider

for answers and diagnosis, it's the individual who must continue to live with the impact of a condition as part of their ongoing life. By recognizing this impact and providing support to patients' individual needs, feelings of loneliness and isolation can be reduced.

In the digital age, new tools are emerging to help patients become more engaged in their treatment and deliver the necessary support through preferred communication channels. Smartphone applications, chatbots, email, text, and other digital communication channels are emerging as new avenues to travel alongside patients throughout their journey. This move in digital engagement recognizes patients as people who are managing and juggling complexities of new treatment, ongoing care, and the comprehensive aspects of their individual lives.

Today, there are more than 1,000 different digital health tools, apps, platforms, and wearable devicesⁱⁱⁱ that can help to track patient health and/or analyze their health. But driving engagement in digital health means guidance must be personalized and supportive to create strong engagement. Instead of leaving patients to fend for themselves and navigate medication therapy, guided assistance helps to create empowered and informed patients with tools to become engaged in their own health. But are these digital tools and new communication channels enough to move patients from diagnosis to empowerment, or is there a greater challenge still missing?

MINIMIZING THE 'TROUGH OF DISILLUSIONMENT'

In Gartner's concept of a technology cycle, the process includes a peak of expectation, a trough of disillusionment, and then moves into a slope of enlightenment (shown in Figure 1). The theory follows that users travel along peaks and valleys over time as their engagement with technology continues. But in today's digital patient world, is it also fair to say that patients experience a similar rise and fall with their own health engagement?

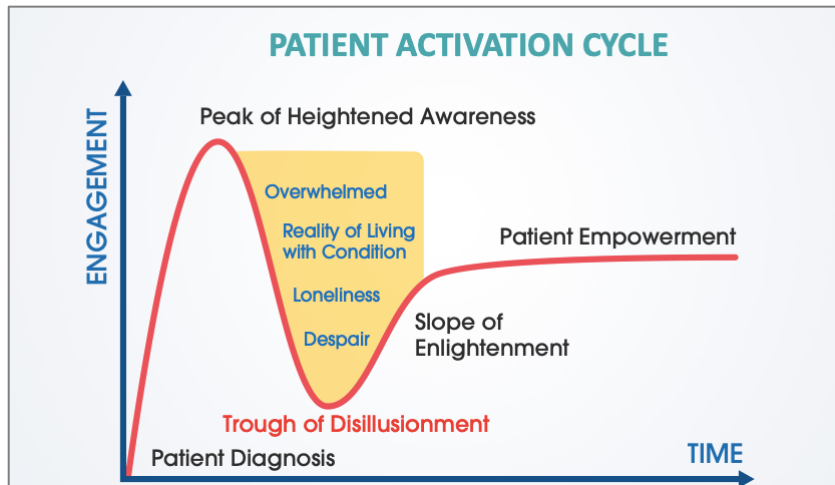


Figure 1

A 'Patient Activation Cycle' follows patients from time of diagnosis to a state of heightened awareness about their condition, then down into a Trough of Disillusionment, and then back upward toward enlightenment and empowerment. Lost engagement occurs in the Trough of Disillusionment as the reality of living with a condition sets in, leading to feelings of isolation, fear, loneliness. It's coupled with distractions and worry over living with a chronic condition and how it will impact their life and those around them.

Without proper support and guidance, this can often lead patients to delay treatment or forego care altogether. Patients get stuck as they process the reality of their diagnosis and/or the addition of another comorbidity that could further complicate existing conditions. It also adds complexities of managing medication therapy and how to begin treatment and long-term care. In today's model, patients traditionally

process through feelings of fear, despair, and worry all on their own. As mentioned previously, an estimated 44% of patients are lost in this cycle because proper support and reassurance is typically unavailable during this stage and continued treatment is abandoned.

By pairing patients with a trusted, empathetic source that is delivered through a human hello, patients feel supported and encouraged to start and maintain treatment. The process isn't a one-time engagement – rather it's maintaining that connection via a digital connection so that the proper support is always within reach. By making early connections and instilling the proper support, patients have 24/7 guidance and reassurance, setting them on a path to empowerment.

REINTRODUCING HUMAN ENGAGEMENT IN THE DIGITAL AGE

There is no greater power than the human connection. For patients struggling with a medical diagnosis, having human support, empathy, and connection can help to lessen the impact and transform patients into advocates. Digital tools can help to support the long-term ongoing process of medication therapy, but could a personal patient advocate really move from awareness to empowerment? According to data from Encora, human-centric technology is driving greater patient engagement^{iv}.

Pleio, a leader in hybrid human-digital patient engagement, employs empathetic humans who help patients feel good about starting medication therapy, or *GoodStarters*. They support patients as they start the arduous and emotion tasks of beginning or resuming medication therapy. GoodStarters guide patients through the early stages of treatment and offer support for any challenges. They empathize with patients through their psychological and emotional hurdles and build confidence in their treatment approach. As an augmentation to physicians, pharmacists or other medical personnel, Pleio GoodStarters are non-healthcare support staff who can help walk patients through their journey and speak the same language. This approach helps to establish trust and address emotional barriers that accompany new treatment. By using a human hello, Pleio is able to create a pivotal behavior shaping connection that guides patients on their "path" to success.

INTEGRATED SUPPORT AS DAILY PATIENT ENGAGEMENT

Encouraging patients is a complicated process. There are many stand-alone processes that can help at certain intervals but can be limited in reach. Pharma has robust programs to support patients but moving from diagnosis to treatment and developing strong patient engagement can face huge barriers. Research shows effective patient engagement, especially those that pair human and digital connections, improves clinical outcomes and patient satisfaction. And recent studies indicate more than 90% of patients expect to use digital tools to facilitate patient-provider interactions^v. By connecting human mentors with a digital platform that is constantly available, patients no longer must go it alone without some type of support available at their fingertips.

While providers and health systems often think of patients at the point of care or diagnosis, the reality is much more complex. Patients must battle living with a condition and the medication management that comes with it, as part of their daily lives. In many cases, this means making changes to diet, activity levels, stress management, financial implications, and the emotional toll of constantly being reminded of a medical

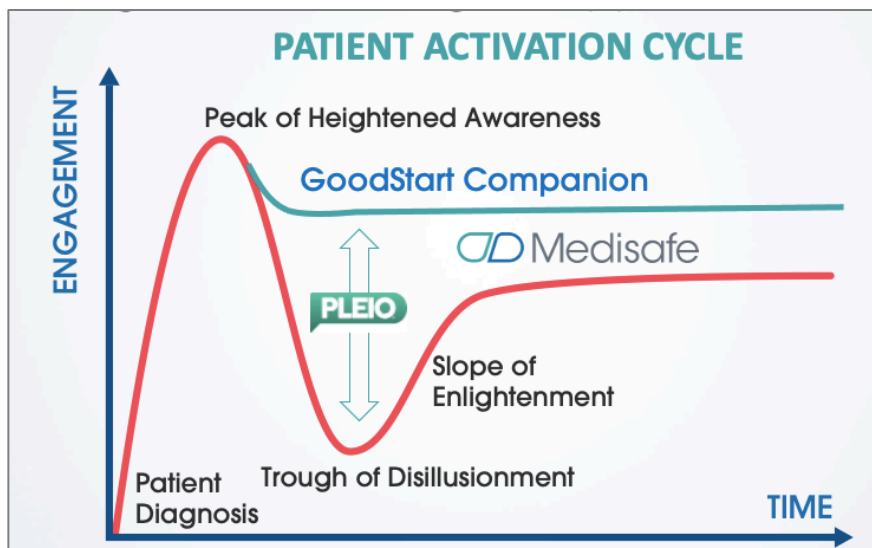
issue. These are the real challenges of living with a chronic condition. Digital health fills a huge void to effectively drive daily patient engagement. Medisafe's digital companions embrace patients throughout their journey offering continuous 24/7 support.

Medisafe's digital companion supports patients by incorporating complex medication regimens into their daily lives and seamlessly connecting them with human support. Powered through advanced AI technology, the digital platform creates active bi-directional interventions from daily check-ins, notifications, measurement tracking and therapy updates to ensure patients are staying adherent and remain compliant on their medications. Medisafe helps patients tackle issues beyond just medication compliance. The platform includes elements such as symptom and mood trackers, patient diaries, refill reminders, financial support services, and interactive chat features to help reduce complexities and simplify living with a medical condition. This effort continuously drives engagement beyond a point of care check-in.

Using live patient mentors help reduce anxiety, lessen challenges to beginning therapy, and give credence to the issues of social, economic, emotional, and other outlying concerns that are part of the patient treatment process. The human-to-digital connection means that patients are no longer isolated and have tools and support throughout their journey. It also helps to instill confidence in their recommended treatment and less likely to drop off from medication therapy. This support is designed to align with the realities of daily life as a patient.

PATH TO EMPOWERMENT

Medisafe and Pleio have teamed up to help create a greater patient connection that combines the strengths of both organizations to yield even better patient engagement. The program thoroughly integrates Medisafe's digital drug companion with Pleio human support to create a robust human+digital platform. The program begins with a Pleio GoodStarter who delivers counsel and guidance to patients and guides patients onto the Medisafe digital platform for ongoing support. The experience moves patients from talking to clicking all the while maintaining connection to support services. This human hello-to-digital embrace program supports patients throughout their journey and increases engagement in their own health and therapy.



Pleio's GoodStarters develop a rapport, start a dialogue and make it real to set patients on their therapy journey. More than 50% of Pleio patients choose to opt-in to digital programs, demonstrating the impact and effectiveness of creating a trusted rapport with advocates. From this impact, what we see in the activation cycle is that patients are able to move from awareness of their new diagnosis to a state of enlightenment with minimal disruption (as shown in Figure 2).

Figure 2

By delivering a combination human and digital support and guidance, patients can avoid feelings of doubt, loneliness, and despair, becoming more fully engaged in their own health.

THE HARD AND SOFT FACTS OF RETHINKING THE PATIENT ACTIVATION CYCLE

Digital health is a large and growing field that is based on a simple concept: using technology to help people better their health and wellbeing. Over the past decade, the healthcare mobile platform industry has evolved into a remarkable biological system; a market that is not only strong but also has enormous potential. In recent years, mobile health innovations have been more aligned with the introduction of technological advances, new implementation plans, and transforming human connection. As innovation and human integration continue, the global market size is estimated to grow to \$220B by 2026^{vi}.

It's clear from the numbers that changing the patient activation cycle can yield real results; and by integrating a patient-centric approach to digital health tools, the future of the healthcare ecosystem will look very different. Currently, 64% of U.S. adults regularly use an app to measure their health metrics,^{vii}. This means that more patients are turning to new technology to engage with their health and stay connected to providers and ongoing support. Digital health tools aren't being used simply for patient-physician engagement, but also for longer-term support. According to research, 42% of patients currently use a digital health tool to track their medications.^{viii} And 74% of patients say using mobile apps wearables and other mHealth tools helps them cope with and manage their conditions^{ix}.

Rethinking the cycle also yields strong results for the industry as well. Helping to reduce the trough of disillusionment can reduce the number of medications that are never filled, and those patients who never engage in their treatment. This amounts to an estimated \$290B lost annually for pharmaceutical companies and leads to additional costs to the healthcare system. By uniting human advocates with digital tools, human+digital programs can improve engagement by an additional 15% among providers and patients, helping to reduce the amount of drop-off and improve first-fill prescriptions. From a healthcare perspective, these types of programs continue to increase with the support of payors, providers, and health systems. In fact, 93% of doctors believe mobile health platforms can improve patients' health. And 74% of hospitals are using mobile health devices to improve efficiencies and support the discharge process^x. More than two-thirds of healthcare technology executives believe that the use of mobile health platforms will dramatically impact healthcare in the future^{xi}.

- ***"People don't say 'I want to be adherent,' but I want to save time, save money, and be healthy. The consumer goal is often different from the industry goal, and the opportunity is at the intersection of those two." Mia Ferrara, Senior Director, Digital Strategy, CVS Health***
- ***"The arrival of digital therapeutics – an emerging health discipline that uses technology to augment or even replace active drugs in disease treatment – is reshaping the landscape for new medicines, product reimbursement and regulatory oversight^{xii}."***

Beyond the quantitative results from rethinking the patient activation cycle, there is the human aspect that is at the core of all digital health platforms. Patient health is a personal and essential need that deserves special care and understanding, one that is often best delivered with a compassionate human touch. The qualitative results from patients demonstrate the impact of a patient-centric approach can deliver:

- ***Nobody keeps tabs on you. It's nice to know somebody is out there concerned about my diabetes and whether I'm taking my medication properly.***
- ***This is the first time I've ever gotten calls like this, somebody else outside family checking on me and I find that very soothing.***

Digital health platforms, especially those that combine human and digital to create an engaging and lasting connection with patient continue to shape the future of the healthcare system. Whatever technology advancements lie ahead, it's clear that utilizing a combination of human advocates and sophisticated digital tech can create real results, drive engagement, and reduce fears and complexities of living with a medical condition. The human condition requires understanding, support, guidance, and above all compassion to ensure every person can achieve their dreams and live a life fully imagine. Thanks to the human spirit and technology that connects us all, these dreams are now becoming a reality.

ⁱ <https://www.norc.org/NewsEventsPublications/PressReleases/Pages/survey-finds-large-number-of-people-skipping-necessary-medical-care-because-cost.aspx>

ⁱⁱ "Thinking Outside the Pillbox: A System-wide Approach to Improving Patient Adherence for Chronic Disease." NEHI. 2009

ⁱⁱⁱ <https://www.grandviewresearch.com/industry-analysis/digital-health-market>

^{iv} <https://www.encora.com/insights/driving-better-clinical-outcomes-with-patient-engagement>

^v Engaging Patients in Clinical Registries. Council for Medical Specialty Societies. November 2019.

^{vi} Digital Health Market by Component (Software, Hardware, and Services), By Technology (mHealth, Digital Health Systems, Tele Healthcare, and Healthcare Analytics): Global Industry Perspective, Comprehensive Analysis, and Forecast, 2020 – 2026"

^{vii} <https://www.mobihealthnews.com/content/survey-64-percent-patients-use-digital-device-manage-health>

^{viii} <https://rockhealth.com/research/#data>

^{ix} [Boston Technology Corporation](#)

^x <https://www.healthitoutcomes.com/doc/mhealth-statistics-to-know-0001>

^{xi} <https://www.himss.org/library/mhealth>

^{xii} <https://www.pwc.com/us/en/industries/health-industries/top-health-industry-issues/digital-therapeutics-and-connected-care.html>