

Transforming How Pharma Delivers Value

The case for using next-gen digital platforms
to engage patients and accelerate growth



Executive Summary

Next-generation Digital Solutions Boost First Fill, Adherence and Persistence

Supporting patient engagement is not only a growing strategic initiative for pharma companies but is proving to be an impactful value driver. Newer digital solutions are documenting their worth as critical components of a comprehensive patient-care platform that connects patients to healthcare services and supports them throughout their journey.

The value of these digital solutions is no longer hypothetical or merely a ‘nice’ add-on to patient services programs. In addition to delivering significant clinical value to patients, these ‘next-gen’ digital platforms are impacting the bottom line of pharma companies by increasing first fill rates, adherence and persistence of therapy. According to third-party research evaluating a sub-Q biologic involving 45,000 invited patients, the potential two-year value of a next-gen digital companion serving as an adjunct to the patient services program is \$28.1 million.

This paper describes how today’s next-gen digital solutions can deliver meaningful results for patients, providers, and pharma organizations when they have five critical elements:

- 1. Adaptable and integrated platform
- 2. Patient-centric messaging
- 3. Personalized engagement using AI
- 4. Scalability
- 5. Enhanced real-world evidence

In today’s competitive world of pharma brands, a narrowing share of patients, and contrasting engagement channels, advanced digital solutions offer new opportunities to create value and build loyalty that leads to greater persistence and improved outcomes.

\$28.1M
the potential two-year value of a next-gen digital companion as an adjunct to the patient services program



Patient services are essential to delivering care that improves health and economic outcomes. In order to realize this goal, patients need to know about and use the services available to them. Pharmaceutical companies can play a key role in this by designing services that fit into HCP's and patients' daily lives, measuring and communicating the value of patient services, making these services easy to understand and access, and using new technologies to deliver these services.”

— Excerpt from Accenture report, “Move the Needle”⁸

How can bio-pharmaceutical companies increase the percentage of patients that both start and maintain optimal therapeutic regimens? What is the top and bottom-line impact to pharma of improving this?

Evidence shows that compliance and persistence with therapy is often suboptimal and there are implications for both clinical outcomes and treatment costs.^{1,2,3,4,5}

Historically, the industry tended to focus most of its efforts on patient acquisition — largely achieved by influencing prescribing physicians and payers. Today, many companies recognize the need to broaden their focus to ensure they also improve patient adherence and outcomes. This is especially important for specialty medications — both in terms of the impact of these treatments on patients and the economic impact of sustaining the patient relationship.

A number of studies suggest that when patients access patient services, they can better navigate the complexities of today's specialty medications and can improve their adherence, quality of life, and health.⁶ Getting more patients to access those services and attain desired results, however, has proved challenging. For example, a recent Accenture survey of 12,000 patients found that only 16% were aware of patient services and that awareness and adoption of these services had not increased much since 2015.⁷

Patient adherence is a complex issue that cannot be addressed simply by relying on physicians. Physicians lack continuous insights into patients' therapeutic regimens and health habits, and office visit times are shrinking,⁹ making it difficult for them to devote sufficient time to medication usage. And adding more pharma-sponsored patient support staff isn't effective from a cost or results perspective.

Sadly, the initial forays into digital technology to help boost engagement proved disappointing. Many pharma companies built or purchased digital apps, helping to fuel a double-digit annual growth rate that is projected to make the market for patient engagement solutions worth nearly \$19 billion by 2022.¹⁰ Yet the Accenture data suggests these investments may not be impacting patient adherence and persistence.

One reason is that these initial apps were narrowly focused (e.g., basic medication or refill reminders) and disconnected from patients' ecosystem of support services, prescribing physicians, and patient caregivers throughout their journey. Moreover, pharma companies that built in-house solutions found that they were time-consuming and hard to support or sustain, and that compliance risks required significant time to manage.

That created skepticism about the value of this first-gen, stand-alone technology among many in the pharma industry. But industry leaders are seeking comprehensive next-gen solutions that are more effective

than those first-gen solutions because there's no turning back the clock; today's patients are demanding the convenience of digital services and payers are increasingly demanding that specialty medications demonstrate value. Companies that fail to measure and promote greater adherence (and attainment of desired clinical outcomes) will do so at their peril, while those that adopt comprehensive technology connected to other clinical and financial services to achieve this are likely to emerge as winners.

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The use of digital technology is undeniably transforming healthcare. Digital companions are a vital part of that transformation, creating continuous support for consumers. This not only has huge benefits for consumers but also results in significant value to pharma.”

— Lee Shapiro, Managing Partner, 7wire Ventures

The Solution:

Beyond Apps to a Next-Gen Digital Platform

Over the past five years, various solutions have been introduced to address the gaps and technology limitations of the first-gen apps. Our experience shows that there are five attributes that can help leading organizations create sophisticated patient engagement platforms to help them achieve their goals and deliver measurable value for themselves and patients alike.

These platforms should apply AI and behavioral science to customize each patient's experience, provide critical linkages to other health system services to support patients throughout their therapeutic journey, be scalable, and deliver real-world treatment insights to biopharma that can help prove value.

Five Key Attributes of an Effective Digital Platform

Adaptable and integrated – The ideal technology makes it easy to better connect and support all stakeholders throughout the entire patient journey, rather than initially or episodically. That means connecting patients, patient support staff, physicians, and caregivers (e.g., family and friends) in a single platform that makes it efficient to share information, monitor treatment adherence and persistence, answer questions, and quickly resolve issues. An integrated solution should also link to financial support systems and various IT systems to enable key stakeholders to retrieve, analyze and share meaningful data.

While many factors contribute to gaps in initiating and sustaining treatment, today's solutions must build stronger patient connections that yield better insights and inform optimal treatment paths. Rather than relying on time-strapped physicians to ensure compliance with medication regimens, a connected platform can leverage technology to support this. And rather than requiring patient support staff to spend their time answering basic patient questions over and over again or spending time on non-value-added activities such as scheduling or returning calls, pharma companies can link patients to online resources with the option to connect to patient support services.



“Medisafe is doing it right. Integrating medication adherence and strong communication with the care team is the perfect template and use case for how digital health should be done.”

— Stacy Hurt, patient advocate

2 Patient-centric – The right platform is one that patients want to use because it meets their needs as they manage their medication(s) and medical condition(s). It must holistically support patients managing multiple conditions with multiple medications. The solution should be easily accessible and user friendly — available on different operating systems and at no cost to patients. It also should use simple language that patients can understand, as well as include robust patient support and educational resources such as community groups, guidance on use, and a medication diary.

3 AI-powered personalized engagement – Look for a platform that uses AI to deliver just-in-time interventions that enable the behavior change needed to attain targeted clinical outcomes. AI creates more personalized conversations that address specific patient needs. Combining behavior data with patient demographics and preferences, the solution generates a more complete picture of each patient that can adapt to their activities, preferred communication channels and ideal timing. Digital solutions can capture this information to engage and support patients as well as to reinforce healthy behaviors.

4 Scalable for strategic alignment and speed to market – It’s no longer sufficient for a solution to serve the narrow niche of a single brand, as Pharma or Manufacturers are increasingly seeking to apply the solution/platform across their different brands. Instead, look for a solution that can effectively scale across the pharma portfolio. To do this, the solution needs to be easy to change and able to plug in/pull out various components as needed.

A scalable solution will enable the brand and patient support teams to make changes that are required for specific treatments and/or to accommodate changes that may occur at a portfolio level. For example, integration with specialty pharmacies, patient services and financial services should be completed in weeks, not months. A scalable solution should also provide the tools to easily develop unique digital companions, prompting the team to select various features depending on treatment and patient circumstances.

5 Enhanced real world evidence (RWE) – RWE has gained significant acceptance with payers and regulators, and is becoming more widespread in the pharma industry.¹¹ That makes it imperative for patient engagement solutions to enable data collection that provides insights into which treatments work best for a given population and how those treatments can be supported to optimize results. Solution platforms will need to include capabilities that collect required patient data and enable targeted analyses.

Calculating the Value of a Next-gen Digital Platform:

Six Value Levers

To date, there has been little data to support the potential value of these next-gen digital platforms. Yet pharma organizations rightly want to know what their investment could generate in terms of financial benefits and clinical outcomes. That's why Medisafe commissioned healthcare consultancy Sage Growth Partners to create an Economic Impact Model (EIM). The model (which is based on inputs from industry case studies, real world and observational research, and literature reviews) conservatively estimates the potential revenue or saved hours that can be realized by deploying a state-of-the-art platform.

The EIM model calculates six value levers that this platform can generate.

Three levers have direct benefits:

1. Improved first fill rates
2. Higher adherence rates
3. Improved persistence rates

The remaining three provide indirect benefits:

1. More efficient care coordination
2. Improved clinical outcomes
3. Higher NPS scores and physician referral rates

These are described below.



**Improve First
Fill Rate**



**Improved
Adherence**



**Extension of
Persistence**



**Care
Coordination
Efficiency**



**Expanded
Referrals**



**Improved
Clinical
Outcomes**

A Value Levers with Direct Benefits

1 Improved First Fill Rate — First fill rates improve because patients remain in contact through the authorization process and receive communications highlighting benefits of initiating treatment.¹² Based on actual Medisafe study data, the EIM projects that use of a digital companion in conjunction with a patient services program can increase first-fill rate by five percentage points, from a 65% baseline to 70%.

2 Higher Adherence — Adherence rates, measured by patients' compliance to therapy regimens, have been shown to increase as a result of the stronger relationships and engagement that digital companion platforms foster, which leads more patients to continue taking their treatment appropriately for the optimal duration. Based on real-world Medisafe data, the EIM assumes that the adherence rate for existing patients who begin using the platform increases by seven percentage points over baseline.¹³

3 Improved Persistence — Using a digital companion also boosts how long patients persist on their treatment. A pilot Medisafe project for an oral oncology brand demonstrated a 10% increase in both 30 and 90-day persistence rates, as shown in Case Study 1. And recent real-world Medisafe data for a sub-Q biologic documented an increase in persistence of 16 percentage points over baseline.

The combined impact of these direct benefits for a specialty treatment used by 45,000 patients is projected to have a two-year economic impact of \$28.1 million, as shown in Case Study 2.

Case Study 1

Greater Adherence for a Major Oncology Brand

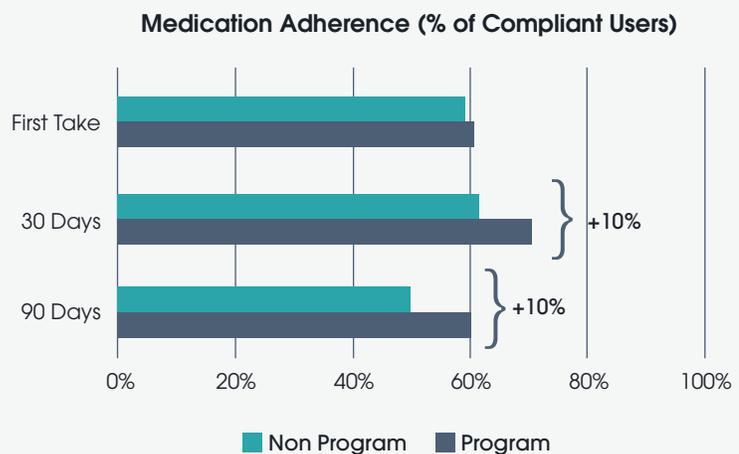
A pilot project shows how a next-gen solution can pay off

Problem: A major oral oncology brand experienced significant patient drop-off within the first three months of treatment.

Solution: Medisafe deployed a digital drug companion to support oncology patients through the first three months with interventions and education about the therapy.

Results:

- 10% increase in adherence in 30-day and 90-day med use
- Achieved 71% adherence within 30 days
- Achieved 63% adherence within 90 days



Case Study 2

Paying Off:

The Value of a Next-Gen Platform for a Sub-Q Biologic

This case is based on a retrospective analysis of claims data for two patient groups; one group used the Medisafe solution plus patient services program and the second group used only the patient services program without Medisafe. The analysis measured adherence (medication possession ratio) and persistence (months on treatment). Additionally, this case includes the benefit of improving the first fill rate based on data from comparable cases.

To illustrate the impact of the digital drug companion program, this case study assumes the Sub-Q Biologic has an addressable market of 45,000 patients over a two year period with a monthly dosing regimen of \$5,000 per patient per month. Over the two year period 11% of the Sub-Q Biologic addressable market joined the Medisafe digital program, accounting for 5,500 enrolled patients.

Results: Direct Benefits: The platform is calculated to increase the Sub-Q Biologic's two-year gross revenues by \$28 million due to improved first fill, adherence and persistence rates.

Indirect Benefits: The Sub-Q Biologic is also expected to benefit from other potential changes such as more efficient care coordination, improved clinical outcomes, and elevated NPS scores/physician referral rates. These indirect benefits are valued at over \$1.2 million. Additionally, patient support nurses are estimated to save a total of 847 hours over two years due to more efficient patient education and support workflows.

2-Year Benefits for a Sub-Q Biologic Company With 45,000 Invited Patients

	Total 2-year Benefit (in millions)	Per Patient Per Year
Direct Benefits		
Improved first fill rate	\$2.9 M	\$262
Improved adherence	\$7.7 M	\$696
Improved persistence	\$17.5 M	\$1,591
Subtotal Direct Benefits	\$28.1 M	\$2,549
Indirect Benefits		
More efficient care coordination (in hours)	857 saved hours	N.A.
Improved clinical outcomes	\$0.1 M	N.A.
Improved NPS/referrals	\$1.2 M	\$108
Total 2-year pharma co. benefit	\$29.4 M	\$2,657

B Value Levers with Indirect Benefits

Because the industry is at the early stages of correlating an increase in appropriate drug usage with better clinical outcomes and higher rates of patient and physician referrals, the model takes an extremely conservative approach to estimating new revenues and benefits resulting from the three indirect value levers. As additional data becomes available, these value levers are expected to have their value confirmed.

Digital connection and integration to care is proven to increase patient adoption by 45%, strengthen 30-day retention by 83%, and enhance nurse-patient connectivity by 78%, compared to programs without a digital companion.

1 More Efficient Care Coordination — Adding a digital channel to patient support services improves the quality of support and clinician productivity by increasing the connection rate and time spent on more mission-critical activities. Patients can look up info online or on the app instead of calling their support team. The EIM conservatively assumes that the organization can save seven (7) hours per nurse per program, per month (which could increase to 10 hours depending on the program type). This time could be used to decrease the cost of the program or to allow nurses to spend more time on higher-value patient care tasks, presumably improving both nurse and patient satisfaction.¹⁴ These savings are not included in the revenue calculations.

2 Better Clinical Outcomes — A connected platform keeps patients better informed of the risk and benefits of their medication as well as improving their connectivity to support services so they can better manage their therapy. Patients who understand why they are taking their medications tend to be more likely to take them and improve clinical outcomes. The findings of a recent study that researched mobile phone-based interventions supports this claim, finding that they improved adherence to therapy and resulted in better clinical outcomes and quality of life for patients with psoriasis.¹⁵ Additionally, a meta-analysis of the literature found a relationship between patients' concerns over poor outcomes and likelihood to refill a script.¹⁶

3 Higher NPS Scores and Physician Referral Rates — A better patient experience can contribute to more loyal patients, better treatment outcomes, and an elevated net promoter score (NPS). Based on studies across multiple treatments (including a study on mHealth platforms for multiple sclerosis (MS) patients),¹⁷ each additional “promoter” is conservatively estimated to provide a referral to one potential new patient with a similar health condition. The EIM then conservatively assumes that only 3% of those patients to whom the drug is recommended actually begin using the treatment.

Physician referrals for treatment can also be impacted; they are more likely to prescribe a drug that they have found to improve outcomes, adherence and patient satisfaction;¹⁸ each of these can be positively influenced by an integrated digital platform. To be conservative in estimating this potential impact, the EIM projects that using the platform will only increase physician referral rates by 1.5 percentage points.

Creating a More Connected Ecosystem

First-generation stand-alone apps often yielded disappointing results, with little or no improvement in patient engagement or therapy adherence. That should not discourage pharma organizations from using the highly advanced next-gen digital platforms now on the market. As the EIM shown here demonstrates, solutions that deliver the five attributes described in this paper can propel the growth in revenues and reputation that are worth millions to a pharma organization every year.

Patients and their caregivers will benefit from the personalization and convenience that an easy-to-use, integrated platform offers to help them better manage their medications. Physicians and patient support staff will benefit by efficiently monitoring drug usage, preventing adverse drug reactions, and proactively addressing questions and issues.

For pharma, an integrated digital platform also becomes an increasingly important source for behavioral information and other data needed to demonstrate treatment efficacy. Solutions that connect the entire pharma ecosystem facilitate the collection and analysis of key metrics, then link those metrics to more effective patient support teams, enable them to scale cost-effectively, and make patients, physicians, and pharma staff happier and healthier.

Pharma executives can and should demand more for their investment, and a comprehensive digital platform should be able to quantify its value across multiple levers for each prospective pharma purchaser.

To calculate the expected value of using an integrated digital platform in your organization, contact us at info@Medisafe.com for your complementary customized Economic Impact Model.

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