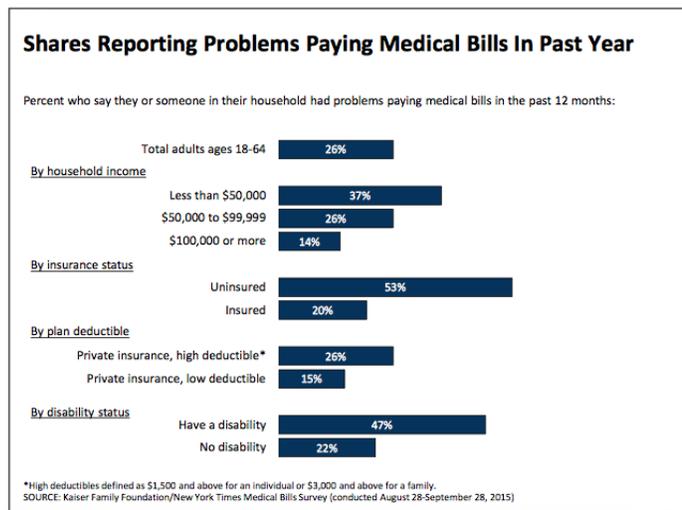


Beyond Paper:

Innovating Care to Support Rehabilitation at Home

We live in a digital health world shaped by consumer experience, instant access information, and the ongoing quest to save time and money. Providers, health systems, and payers are responding to consumer demands by altering their approach to care delivery and clinical workflow. Innovative mhealth providers like Trainer Rx are taking the lead by delivering on what consumers want while also providing data on rehabilitation and recovery that providers, payers, and healthcare systems need.

Some say the digital health evolution began when consumers searched for new ways to control their healthcare costs, which are spiraling out of control. According to the AARP Public Policy Institute, one in five families report having trouble paying their medical bills¹.



Today, many families turn to mhealth, because digital health solutions not only offer them quick access to care but also help reign in out-of-control expenses².

The Move to Patient Engagement

Traditionally, when providers prescribe at-home regimens to patients, their recommendations are often forgotten, ignored, or pushed back.

According to surveys reported by *mHealth News*, seven out of every 10 patients don't follow their doctor's orders. Common reasons for lack of adherence include the following:

Families who report having problems with medical bill payments²

- Patients' expectations about length of time or work necessary for recovery
- Patients' work/school/life balance
- Cost or insurance coverage
- Access to transportation

Poor adherence, access to care, and lack of engagement can be roadblocks to recovery. This is where mhealth solutions can help. Utilizing mhealth improves compliance through engagement. By encouraging patients to be active in their own recovery, their ability to comply with physician orders increases. Multiple experts agree that having patients control their health journey is a critical part of population wellness. They point to studies demonstrating that engaged, empowered patients adhere to therapy and reduce costs for systems³.

In 2016, Accenture looked at what an empowered patient behavior looks like in a digital health world. The group commissioned a survey, asking nearly 8,000 consumers what health management tools they commonly use⁴. Not surprisingly, the majority (67%) view health data online (ie, via web portal). They also rely on mobile devices (33%), wearables (21%), and smart scales (13%) to track their health and wellness and use digital resources as reinforcements of good behavior.

Today’s digitally engaged patients also report they would do any or all of the following remotely:

- Watch an instructional video to learn about an upcoming surgery or a health diagnosis
- Track key health metrics, such as blood glucose or blood pressure levels
- Carry out an individualized exercise plan or activity session

“Digital therapies have changed the paradigm. They represent the future of physical therapy and post-surgery recovery. Digital therapies can reduce cost, improve outcomes, and provide a complete patient-focused solution compared to traditional therapy alone.”

— Geoffrey S. Van Thiel, MD
 Team Physician, US National Soccer Team &
 Assistant Professor, Rush University Medical Center

mHealth and the Impact on Musculoskeletal Injuries

Musculoskeletal injuries (MSIs) are a prime target for digital innovation. One reason is the significant out-of-pocket costs to patients, which according to the US Bureau of Labor Statistics is almost \$15,000 (in direct average cost) per individual⁵.

The US spends **\$1T** on musculoskeletal injuries while only a small fraction—\$30B—is spent on rehab⁶. Why the disconnect? By definition, US is a supply driven market. We tend to spend more, test more, and prescribe more vs focus on outcomes. Without the incentives to drive down costs, the amount spent on MSIs continues to rise. Innovation in mhealth can help restructure how healthcare delivery is organized and measured.

How Work Injuries Lead to High Costs and Opioid Use

When it comes to the workplace, musculoskeletal injuries are the single largest category of on-the-job injuries, accounting for almost 30% of all workers’ comp costs⁵. The Occupational Safety and Health Administration (OSHA) estimates that over 600,000 injuries each year are work-related MSIs, which accounts for 34% of all lost workdays⁷. Managing workers’ compensation patients with musculoskeletal disorders generates a direct cost of \$20 billion a year and up to five times that much for indirect costs⁷.

Physical Therapy as First Level Support	
Treats pain through movement.	Opioids mask pain.
Outcome: improved mobility, increased independence, decreased pain, and prevention of other health problems through movement and exercise.	Opioid side effects include depression, overdose, addiction, and withdrawal symptoms.
CDC cited “high quality evidence” supporting exercise as part of physical therapist treatment for low back pain, hip and knee osteoarthritis.	Opioid effectiveness for long-term pain management is inconclusive in many cases.

As the number of workplace injuries rise, so does the use (and potential abuse) of prescription opioids. The CDC recently developed prescribing guidelines for opioids to improve the way they are prescribed through clinical practice. The goal of the guidelines is to ensure patients have access to safer, more effective chronic pain treatment while reducing the risk of opioid use disorder, overdose, and death. Nearly two million Americans, ages 12 or older, either abused or were dependent on prescription opioids in 2014⁸.

Two studies from the independent Workers Compensation Research Institute (WCRI) reveal that 55-85% percent of injured workers who missed seven days or more of work received at least one opioid prescription⁸. The report also shows that 75% of injured workers who are prescribed opioids do not receive opioid management services (urine and drug testing, psychological and psychiatric evaluation, and physical therapy and exercises). It’s unclear why these patients had no access to opioid management programs, considering that studies have demonstrated opioid use has a higher medical cost than other alternatives, such as physical therapy¹⁰.

“As a physical therapist dedicated to injured worker rehabilitation, I found that individuals who fully participate in their home exercise programs achieve better outcomes than those who do not.”

— Michelle Despres
VP, National Product Leader, One Call Care Management

Trainer Rx: An mHealth Solution

Trainer Rx is a rehabilitation platform focused on the musculoskeletal (orthopedics), ranging from injury prevention to post-surgery recovery. The platform offers more than 150 different clinical pathways that patients can access anytime, anywhere, and on any device. The Trainer Rx platform is the answer to the demand for value-based care programs.

The product content is designed by clinical experts, including orthopedic surgeons, physical therapists, and certified athletic trainers. All sessions use evidence-based protocols. The Trainer Rx platform incorporates:

- Behavioral change theory to drive patient empowerment
- PROMs (patient-reported outcome measures), which are included in each session to measure progress
- Machine-learning technology (patent pending) that adjusts content to patient needs
- Real-time data analytics, which allows providers to view patient outcomes and select auto-generated reports when needed



Like conventional physical therapy, Trainer Rx is first prescribed by providers. Once registered, patients access the pathway content, educational materials and home self-care information for up to one year. Trainer Rx patients receive text reminders of upcoming sessions. Each session is carefully choreographed to follow standard clinical protocols. Patients complete a brief series of questions after their exercise that ask about the session’s level of difficulty. These self-reported evaluations are accessed by providers and clinicians in real time.



“This is a great program. Well researched, well planned and well presented. It is just difficult enough to push me, but not overwhelming. It is easy to use and very convenient. It has given me very good results.”

— Steve, surgical patient
Trainer Rx user for 90 days

The Value for Clinicians and Providers

Providers who have utilized the Trainer Rx platform say one of its most important advantages over conventional physical therapy is its ability to improve data transparency. Previously, reviewing a patient’s progress and assessing outcomes were time consuming because providers often had to wait for written reports or rely on patient memory. With platforms like Trainer Rx, all data are collected in real time. Providers track progress remotely and also make modifications to individual therapeutic programs as appropriate.

Physical therapists who have utilized Trainer Rx consider the platform an integral part of their therapeutic program. Rather than doling out printed at-home assignments, they can direct patients to sessions and can easily monitor compliance through a dashboard. Feedback from medical professionals has been positive with many recommending the telerehab platform to their patients.

More than 500,000 rehab sessions have been completed since the platform launched in 2014. Patients who have used Trainer Rx expressed high satisfaction with their experience, earning the platform a nearly 88% Net Promoter Score, a known customer loyalty metric. Thousands of Trainer Rx users have benefited from the platform, which has the potential to save consumers money.

“Trainer Rx improves patient experiences...The postoperative protocols assured me that the patient is progressing on a good time frame. The product provides great value to my workers compensation patients who are very focused on recovery.”

— Lesley Anderson, MD
California Pacific Medical Center

Summary

Platforms like Trainer Rx empower patients by placing control of their health in their hands while also providing peace of mind. Expenses are reduced for patient and healthcare providers. Today, more and more consumers are using the Trainer Rx platform to create their goals, engage with content, track their journeys, and improve their quality of life.

For organizations planning on implementing programs designed to improve patient engagement, medication management, and data transparency, platforms like Trainer Rx can be an instrumental part of success. It solves most providers and clinicians’ problems with access and workflow challenges as well as outcome data transparency.

Today, more than ever, healthcare is embracing the digital health world. This is an opportune time to evaluate how an innovative home-recovery platform for MSIs can make a direct impact to an organization’s bottom line.



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