



## **Psilos Group: Digital Therapeutics -- “Software as a Drug”-- is a \$6 Billion Potential Market Opportunity Says 2016 Outlook Report**

### ***Utilizing Software Modules As An Enhancement To Pharmaceuticals For Chronic Conditions Is Poised To Be Critical Component of Digital Healthcare***

NEW YORK, N.Y. (October 6, 2016) – [Psilos Group](#), in its seventh annual **OUTLOOK** outlining major emerging healthcare trends, says digital therapeutics is a \$6 billion market opportunity by 2021. Digital therapeutics--“*software as a drug*”-- deploys software modules as an enhancement, or even a substitute, to a drug. It is poised to become a critical component of digital health and to substantially improve the efficiency of American healthcare.

[Psilos](#), a prominent digital health venture and growth stage investment firm, says digital therapeutics improves health outcomes by addressing chronic conditions through behavioral changes, before they become worse. The new generation of digital therapeutics is demonstrating clinical efficacy by marrying the latest developments in behavioral economics, smartphones, game-ification, biometric sensors, data analytics and artificial intelligence. The long-term goal of digital therapeutics is to bend the healthcare cost curve.

Digital therapeutics is an important piece of healthcare’s ongoing transition from “volume to value” to improve patients’ health and complement in-office care, especially for tens of millions of patients in the early stages of chronic conditions, such as Type 2 diabetes, anxiety and stress disorders, and drug addictions. For these people, health self-management outside of a traditional medical setting is a major determinant of disease progression, as well as healthcare costs.

## **Digital Therapeutics Is A Huge Investment Opportunity**

The digital therapeutics market, currently a nascent, sub-\$1 billion market, is poised to become a \$6 billion market in five years, based on a recent research report by Goldman Sachs, supplemented by Psilos analysis.

Joe Riley, a managing partner of Psilos Group and one of the authors of the report, said investments in digital therapeutics are being fueled by major healthcare players such as Merck, Johnson & Johnson and Amgen.

“The potential growth of digital therapeutics is enormous and represents an incredible venture investment opportunity,” Riley said. “As the moniker “software as a drug” implies, digital therapeutics is delivering measurable and scientifically valid clinical endpoints by tying patients and health professionals together with web and phone interactions. Successful treatment of chronic diseases requires motivated, self-guided and persistent engagement, and this is where digital technology enters the picture and where we see the major investment opportunity,” Riley added.

Steve Krupa, another Psilos managing partner, said digital therapeutics combines proven clinical protocols and the science of behavioral economics with the collection, analysis and communication of patient data in real-time, using smart devices. “Today, the bulk of spending in American healthcare is focused on preventable, chronic diseases overwhelmingly rooted in behavior patterns,” Krupa said. “This is a big piece of the overall solution to begin reversing an overwhelming problem once and for all.”

### **Companies Already Successful in Digital Therapeutics: HealthMine and Pear Therapeutics**

Two companies making progress in digital therapeutics include HealthMine, a Psilos portfolio investment, and Pear Therapeutics.

HealthMine works behind the scenes of healthcare plans to compile data on the complete health of their members daily, including their medical and pharmaceutical histories and lab results. The information is processed through HealthMine’s proprietary platform, which searches for

irregularities such as abnormal heart rates, high glucose readings and high body mass indexes. For members whose health readout is suspect, HealthMine prescribes tailored programs from its 3,500 specific and actionable recommendations.

Results have been impressive. A three-year HealthMine study of 120,000 people enrolled in its wellness programs found that far more than average visited doctors for preventive reasons accounting for 10 to 20 percent fewer hospital admissions, bed days and emergency room visits in the first year.

### **Additional Validation**

Pear Therapeutics develops software and other products for a wide range of behavioral health disorders. Its digital therapies, called E-formulations, are mobile digital therapies that provide patients with a set of rewards linked to abstinence and completion of software modules.

One such product is reSET, a treatment tool used in conjunction with face-to-face therapy to treat substance abuse disorders. More than 500 patients with substance abuse disorders in 10 treatment centers were split into two camps for 12 weeks of testing – those who received traditional face-to-face therapy only and those who received a reduced amount of therapy plus reSET. Abstinence was measured twice weekly.

Among patients who tested positive for drug use at the start of the study, 27 percent were abstinent in study weeks nine through 12, compared to only 3 percent of patients in the same period who relied on face-to-face therapy alone.

Other Pear software-based clinical interventions are under development for the treatment of insomnia, traumatic brain injury, attention deficit disorder, schizophrenia, depression and acute and chronic pain.

## **Excellent Growth Potential for Digital Therapeutics**

These commercial developments and others demonstrate that digital therapeutics, while still relatively nascent, is on a trajectory that will inevitably move up and to the right, Riley said.

“Only recently has behavior modification been embraced as a first-line therapeutic alternative to pills for many of society’s most challenging and costly chronic conditions,” he said. “Now it’s starting to get a bigger lift from digital therapy, and this is a key advance in how America can successfully combat the chronic disease epidemic.”

### **About Psilos Group**

Psilos Group, a digital health venture capital and growth stage investment firm, is partnering with companies that capitalize on the most disruptive trends in healthcare. The firm, founded in 1998 and headquartered in New York City, leverages the modern digital healthcare infrastructure to reduce costs and improve outcomes. Current investments include HealthEdge, HealthMine and PatientSafe Solutions. Other successful investments include ActiveHealth Management, Definity Health and Extend Health. This Outlook is the seventh for Psilos. Psilos Group’s Managing Partner, Steve Krupa, also moderates a podcast called [Breaking Health](#). For more information and the other [Outlooks](#), visit [www.psilos.com](http://www.psilos.com).

Media contacts: Jennifer Jones, [Jennifer@jenniferjones.com](mailto:Jennifer@jenniferjones.com), 650-465-5831 or Steve Kaufman, [steve.kaufman@centurylink.net](mailto:steve.kaufman@centurylink.net), 352-391-4103