

# PHILIPS

## Success Story

Dartmouth Centers  
for Health and Aging



Using Philips tailored ambulatory care programs, the Dartmouth Centers for Health and Aging have:

- Achieved 70% participant adherence<sup>3</sup>, with many participants reporting improved ability to self-manage psychiatric symptoms
- Efficiently develop, personalize, and deploy clinical content for psychiatric libraries
- Tailor the program to their target population and provide coordinated care

# Improving psychiatric self-management skills

How the Dartmouth team helps people with psychiatric instability better cope with and learn about their conditions

Mental illness and substance abuse account for 29% of all hospital days and 22% of hospital costs in the US. Direct costs of care for mental illness is estimated at \$100 billion per year, indirect costs at an additional \$193 billion.<sup>1</sup> However, utilizing telehealth to help people with serious mental illness manage their psychiatric and medical conditions had not been previously studied. Researchers at the Dartmouth Centers for Health and Aging set out to change that.

An initial pilot study produced the following outcomes:

- **80% reduction in hospital days** over 6 months,
- **75% decrease in ER visits** over 6 months, and
- **Improvements in self-reported psychiatric symptoms and illness self-management skills.**<sup>2</sup>

With these promising results, the Dartmouth team received a grant in 2015 from the National Institute of Mental Health for a 300 person randomized control trial to compare telehealth to usual care (R01 MH107625, Pratt, PI). However, the vendor they worked with during the pilot study left the telehealth market in 2016. So, they turned to Philips.

Today, Sarah Pratt, Ph.D., Principal Investigator, and Meghan Santos, LICSW, Project Director, are thrilled

about utilizing the flexibility and adaptability provided by the Philips tailored ambulatory care program.

### Enable use of technology to enhance adherence and self-improvement

Before starting the study, Pratt and Santos wondered about how well people with serious mental illness, particularly individuals with cognitive impairment, would be able to use the tablet technology. However, their apprehensions quickly evaporated; participants in their ongoing study so far have demonstrated similar adherence rates to the pilot study participants – 70%.

“We’re pleased that people like it and want to use the eCareCompanion tablet – we would never want to go back to the clunky device we used before. We find that many times people feel more comfortable disclosing information to the tablet than to a human. We receive more open and honest answers, which is facilitating earlier and more informed intervention.”

**Sarah Pratt, Ph.D.,  
Principal Investigator**

1. Owens P, Myers M, Elixhauser A, Brach C. Care of adults with mental health and substance abuse disorders in US community hospitals, 2004. Rockville, MD: Healthcare Cost and Utilization Project, Fact Book 10, AHRQ Publication No. 07-0008; January 2007.

2. Pratt, S. I., Naslund, J. A., Wolfe, R. S., Santos, M., & Bartels, S. J. (2014). Automated telehealth for managing psychiatric instability in people with serious mental illness. *Journal of Mental Health, 24*(5), 261-265.

3. Adherence rate documented by Dartmouth team current as of 3/30/2017.

After having been hospitalized nine times for psychiatric episodes in the past year, a Rhode Island participant was enrolled in the telehealth program. Since then, she only had two short stays in a crisis stabilization center and no hospital stays. She attributes this success to the self-management component of the program that offers suggestions about coping strategies.

“I like knowing I have someone watching over me even if we don’t communicate all of the time. Before using the tablet, I felt like I wasn’t always mindful of how I was doing. When the telehealth specialist calls me and asks questions, it helps me recognize that I may not take care of myself as I should. I also like the extra support and services that I get when I need them.”  
– Participant

Another participant said it helped her assess her symptoms day-to-day and notice trends she otherwise would not have. She also liked that her providers would know how she had been doing before she got to her next appointment and thought the trivia questions at the end of the daily sessions were a lot of fun. She also found it helpful that the content identified many of her symptoms.

### **Efficiently develop and deploy clinical content for psychiatric libraries**

Much of the success of Dartmouth’s telehealth program for Acute Psychiatric Service Use is attributable to the ability to load disease specific content and survey libraries onto Philips’ tablet-based platform. Utilizing risk stratification and decision trees, the questionnaires:

- Help participants address issues related to medication adherence,
- Provide education and tips for coping with mental illness,
- Allow clinicians to monitor participants for early warning signs of relapse, and
- Engage participants more actively in the self-management of their mental health

The Dartmouth team especially appreciates “the ability to program questionnaires ourselves, and give feedback based on the participant’s responses by encoding survey decision tree logic. This is an important differentiator in our current program compared to our early pilots. We were able to strengthen our content and achieve the look and feel we desired.” – Meghan Santos, LICSW, Project Director

### **Tailor your program to your target population and provide coordinated care**

Just as important as the smart use of technology is identifying participants who need and could possibly benefit from the intervention, and developing a strong and tightly aligned care team.

“I appreciate contact with and alerts from the telehealth specialist in between appointments. Participants may not call myself or other providers in a crisis; however, telehealth gives us the opportunity to improve client care and address needs immediately.”

– Mental Health Provider

Having actionable feedback, education, and tips for managing the condition programmed on eCareCompanion – combined with the ability of the care team to intervene early and coordinate appropriate care – enables high-risk individuals to improve self-management of psychiatric symptoms and chronic health conditions.

“For me it represents the participant taking more responsibility for their care and treatment. Hopefully, treatment does not solely occur when the participant comes in for therapy or medications.”

– Mental Health Provider

### **The future of telehealth for psychiatric instability**

Philips is excited to continue working closely with Pratt and Santos and is eager to learn about the results of Dartmouth’s study, which will end in 2019, as well as to investigate the impact telehealth can have in reducing cost and improving outcomes for people with serious mental illness.

