

Take charge of your health today. Be informed. Be involved.



ESTHER BUSH

'Mobile Health'

This month, the "Take Charge of Your Health Today" page focuses on the intersection of the digital world and people's health, called "mobile health" (or "mHealth"). Bee Schindler, community engagement coordinator with the University of Pittsburgh's Clinical and Translational Science Institute, and Esther L. Bush, president and CEO of the Urban League of Greater Pittsburgh, spoke about this topic.

BS: Good morning, Ms. Bush. I thank you for the chance to talk with you today about mHealth. I'm excited to use this topic to launch my first discussion with you for the New Pittsburgh Courier page. mHealth is interesting to me because studies show that more than three quarters of people living in the United States have smartphones. Many people reading this page can relate to mHealth.

EB: Yes, Bee. This is a topic that most people can relate to, especially as the world becomes more digital. Having the opportunity to monitor health, such as tracking the ways our food intake affects our ability to manage weight loss, is one that could help everyone who has access to smartphones. Weight control ultimately lowers the risk of cardiovascular disease, which the Centers for Disease Control and Prevention states is the cause of one in every four deaths in our country. We're all so busy, so having an app in our pocket to keep track of our habits seems like a good path to me.

BS: Absolutely! Researchers like Dr. Lora Burke from research study coordinators was slow. With mobile apps, users can enter their daily activity, log food intake and get immediate, unique feedback. And, as you noted, being overweight is a risk factor for cardiovascular disease, the leading cause of death for all races, including African Americans. Technology can be used as a remedy for making some changes.

EB: That's important to mention because African Americans are often forced to advocate for their health needs. Taking charge of one's health will lead to being able to make better health decisions that can start with the devices most of us interact with daily.

BS: I second that. Dr. Burke mentions that personal data tracking and a mobile app's ability to serve as a health coach is critical to changing behaviors. It's important for our readers to understand that volunteering for research studies is a vital way for researchers to understand how immediate feedback to the user's activity affects their behaviors and how long they are engaged with the approach. I encourage our readers to check out the resources listed on this page and to discuss them with their doctors to see if any of them will be beneficial to their health.

EB: Thank you so much having this conversation with me, Bee. We've provided some great information and ways that readers can take charge of their health today. I look forward to next month as we discuss gun violence prevention and community trauma.



Around 75 percent of people in the United States use a smartphone, and apps focusing on mobile health (mHealth) can be used to track key and unique health updates for users. (Photo credit: U.S. Department of Health & Human Services: Family and Youth Services Bureau)

Mobile Health and your Lifestyle

People in the United States are living more of their lives online. Increasingly, we interact socially, shop and keep track of our lives digitally. For many people, carrying around a smartphone (a phone that can provide access to the internet and act as a handheld computer) can make busy lives easier. Health care providers are always looking for ways to inspire people to live the healthiest lifestyle possible. Researchers are finding ways to use technology to help people be healthier.

The intersection of the digital world and people's health is called "mobile health" (or "mHealth"). It is the use of mobile devices, especially smartphones, to deliver health care information and sometimes health care. According to the Pew Research Center, 95 percent of people in the United States own some kind of cell phone, and 77 percent own smartphones. Researchers who study ways to help people monitor their lifestyle and health choices are capitalizing on the popularity of smartphones.

Lora Burke, PhD, MPH, professor of health and community systems, School

of Nursing; of epidemiology, Graduate School of Public Health; and of clinical and translational science at the University of Pittsburgh, studies how to help people improve their behavior choices to decrease cardiovascular risk factors. Cardiovascular risk factors include:

- Poor diet—eating foods high in saturated fats (animal fats) and products containing trans fat
- Lack of physical activity
- Excess body fat (being overweight or obese)
- Using too much alcohol—generally defined as more than one drink a day for women and more than two drinks a day for men
- Tobacco use and secondhand smoke exposure

According to the Centers for Disease Control and Prevention, cardiovascular disease is the leading cause of death in the United States for most races and ethnicities, including African Americans, Latinx and whites (second only to cancer for American Indians or Alaska Natives and Asians or Pacific Islanders). Dr. Burke's research has focused on how to use mHealth for one particular risk factor—being overweight.



LORA BURKE, PHD, MPH

Before the availability and popularity of digital technology, Dr. Burke ran studies where people trying to lose weight would come to the University of Pittsburgh across 12-24 months, participate in group sessions and submit paper diaries of what they had eaten and how they had exercised. Participants would get feedback on their progress and suggestions for changing behaviors at the next meeting. It could be weeks later before people received feedback on their diet and exercise records. Through Dr. Burke's and others' research, it became obvious that this model did not bring about lasting change for participants.

"We found that how often,

how consistently and how close to eating people actually recorded what they ate was important to their weight loss," she says. "Research reinforced that the crux of weight loss and changing any behavior is self-monitoring in real time. It makes people aware of their behaviors, able to see behavior patterns and develop ways to change those behaviors."

Dr. Burke saw the immediacy of digital technology as a potentially more effective way for people to self-monitor behaviors. She is now conducting a study that examines how effective mHealth can be for long-term weight loss.

"In this study, we ask people to self-monitor their physical activity, weight and their diet through the use of a smartphone, physical activity tracker and a WiFi- or Bluetooth-enabled scale [all devices except the smartphone are provided to study participants]," she says. "We receive all those data immediately. We developed an algorithm that reads the data and chooses a personalized message from an extensive library we've developed. The messages provide immediate feedback

that is always positive. The feedback also provides ways to guide people to improve their behaviors. I call it a 'coach in your pocket.'"

Because this is a research study testing the effect of the feedback messages on weight loss, the messages are sent to participants in one of the two groups and not to the other group so that researchers can compare outcomes in the two groups.

A large number of health apps exist for smartphone users to download. However, Dr. Burke says that not much research has been done to know whether or not these apps are effective in behavior changes that result in long-term weight loss.

"We're using strategies that have been proven effective based on behavioral research," she says. "We designed the feedback to be specific to the users' data and not generic messages that can become ineffective over time. Part of this study is examining what effect immediate feedback has on people's behaviors and how long people stay engaged with this approach. Using mHealth technology has the potential to make weight loss easier than it used to be."

The SMARTER Study can help you lose weight

People who are overweight are at an increased risk of developing health problems like heart disease, stroke, type 2 diabetes and sleep apnea. Using a smartphone app to keep track of diet and exercise can help people lose weight, but there has been little research done about the effectiveness of these types of apps.

The purpose of this study is to help researchers find out if the combination of

a smartphone app plus feedback messages related to diet, weight and physical activity can help people lose more weight than they do with a smartphone app alone. Researchers hope their findings will lead to a better understanding of how smartphones and other technologies can help people lose weight in the future.

If you are interested in weight loss, are 18 years

of age or older and own and regularly use a smartphone, you may be eligible to participate in a research study to help learn more about the effect of feedback messages on weight loss. This study is 12 months and requires four visits. A fitness tracker, scale and compensation will be provided.

If you are interested in participating in the SMARTER study, e-mail wloss@pitt.edu or call 412-624-2229.



HEALTH & FITNESS TRACKER—The new Apple Watch 4 is on display at the Steve Jobs Theater during an event to announce new products Wednesday, Sept. 12, 2018, in Cupertino, Calif. (AP Photo/Marcio Jose Sanchez)

No Mobile Access?

While around 75 percent of people living in the United States use a mobile device, many do not have access to this resource.

You can take control of your health offline:

- Start a dialogue in person with someone who talks with you about health care.
- UPMC Health Coaches are available to UPMC Health Plan members and provide one-on-one support.
- Stop in to the Urban League of Pittsburgh's Health Education Office (HEO). Nurses are available at the HEO to discuss any mHealth-related questions. The downtown office is located at 610 Wood Street.

Join us for Dinner & Dialogue in Homewood

Who: The Urban League of Greater Pittsburgh, New Pittsburgh Courier, UPMC Center for Engagement & Inclusion, University of Pittsburgh's Clinical and Translational Science Institute (CTSI), and YOU!

What: The free and open to the public Dinner and Dialogue series will discuss Allegheny County-specific health disparities, health topics identified in the Homewood community and current research and resource opportunities. Researchers will be on hand to present findings, and the floor will be open to dialogue. Dinner and child care will be provided. Dinner's topic will be gun violence and community trauma.

Where: Community Engagement Center in Homewood at 622 North Homewood Avenue, Pittsburgh, PA 15208

When: Nov. 8, 2018, from 5:30-7 p.m.

Why: This unique event seeks to boost community health education and advocacy, increase diverse participation in clinical and translational research and encourage individuals to become empowered and actively engaged in their own health.

RSVP to bos23@pitt.edu with your name, number in your party, if you have any food allergies and please let us know if you will require child care. Attendees need not work or live in Homewood to attend this event.