

# COMMUNITY HEALTH MATTERS

Brought to you by the Community Engagement Research Program (CERP) & Clinical Research Network (CRN)  
of the Atlanta Clinical & Translational Science Institute

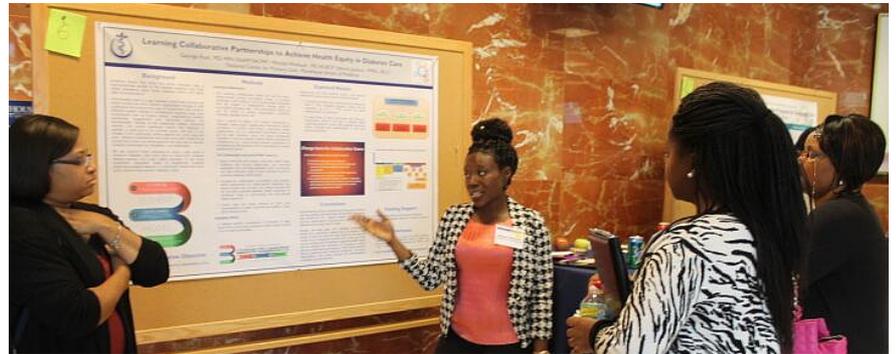
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## ENGAGING THE COMMUNITY; IMPACTING CLINICAL RESEARCH

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Steering Board Chairperson  
Community Engagement  
Research Program (CERP)

Poster presentation at ACTSI-CERP 2nd Annual  
Forum, Community Health Matters

### Of Special Note

Create an Effective Evaluation for Your Project:  
Grant Writing Skill Building Workshop

Community-Academic Research Partnerships Grants  
Program

Visit [www.actsi.org/CERP](http://www.actsi.org/CERP) for more information

Creating an exchange between the community and clinical research is paramount to the success of the CERP program. We are excited to report that over 160 experts from academia, non-profits, foundations, and other community partners were present at the ACTSI-CERP 2nd Annual Community Health Matters Forum: Building Successful Academic & Community Partnerships to Achieve Health Equity, held at Morehouse School of Medicine. The keynote address was given by Derrick Tabor, PhD, program director, Center of Excellence Program, National Institute of Minority Health and Health Disparities, who is a national leader in community engagement for research.



Derrick Tabor, PhD, National Institute of Minority  
Health and Health Disparities, Keynote Speaker

Comments from attendees are overwhelmingly positive, with most stating that they “learned something new” and “expanded their partnership network” by participating in the event. The CERP Community Steering Board anticipates a larger and more in-depth event in 2017! We look forward to an event that will promote collaborative and equitable partnerships that engages community partners, faculty, and researchers where expertise, principles of community-based participatory research, lessons learned, and best practices can be shared.

For more information about CERP, contact Dr. Katherine Erwin at Morehouse School of Medicine (MSM), 404.756.5278.



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# E-HEALTHYSTRIDES

www.ehealthystrides.org



Priscilla Pemu, MD, MS, FACP  
Associate Professor of Medicine  
Morehouse School of Medicine

A typical E-HealthyStrides patient: Mrs. Jones is a 67-year-old diabetic from Decatur with high blood pressure, obesity, and heart disease. She is on insulin and multiple medications; is concerned about medications and wonders if they are effective, since her diabetes and blood pressure are uncontrolled. She is worried about the possibility of going on dialysis or having a limb amputated, just like some of her relatives. Visits to her doctor (Dr. Givens) are increasingly stressful.

Mrs. Jones is a member of Big Bethel AME church (BBAME), where she learns about the Morehouse School of Medicine (MSM) E-HealthyStrides health coaching research program for diabetes. By joining, she is able to create a secure personal health record and with the help of her church-based health coach; she uploads self-monitored blood glucose, blood pressure, and physical activity through the MSM secure patient portal. E-HealthyStrides provides real time color-coded reporting of her monitored parameters.

This allows Mrs. Jones to observe in real time, the effect of her meal choices, physical activity, and medication use as well as stress on her blood glucose and blood pressure patterns. As such, she can make changes as needed and identify the areas in which she needs help. She meets regularly with her coach to set goals for self-management.

Mrs. Jones shares data with her daughter and health coach; her daughter joins Mrs. Jones during her next visit to Dr. Givens. He was confident in making changes to her treatment based on detailed and monitored data generated and maintained by Mrs. Jones and E-HealthyStrides.

This typical patient shows the power of E-HealthyStrides, a patient centered learning healthcare ecosystem based in communities where patients live, worship, work, and play. By engaging patients' family/social network, health coach, as well as physician/health system, patients learn how to initiate and actively participate in healthcare delivery and research with emphasis on cultural, language, and numeric health literacy. For more information on E-HealthyStrides, contact Dr. Priscilla Pemu at pipemu@msm.edu.

The screenshot displays the E-HealthyStrides mobile application interface. On the left, there is a 'Track Your Calories Burned' section with a table for user information:

Gender	M or F
Age	35
Weight	142
Activity Type	Walking
Activity Intensity	5

Below this table is a 'Submit' button. The main area features a large circular progress gauge showing 40% completion, with a 'Progress' indicator and 'eHealthyStrides' branding. To the right of the gauge is a map showing a walking route. At the bottom, there are navigation icons for 'Exercise', 'History', 'Graph', and 'Home'. On the right side of the interface, there is a bar chart titled 'Time Spent Exercising (Hours)' with a 'View Activity Calendar' button. The chart shows an increasing trend in exercise hours from January to November.

This is an example of what a patient would see when logged into e-HealthyStrides.



## THE IMPORTANCE OF DIABETES RESEARCH IN HOSPITALIZED PATIENTS



Guillermo E. Umpierrez, MD,  
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Diabetes is a common disease that affects more than 340 million people around the world. In the U.S., data from the National Diabetes Statistics recently reported that in 2012, a total of 29.1 million Americans had diabetes. The percentage of the population with diabetes is expected to rise. We estimate that one in three U.S. adults will have diabetes by 2050. Diabetes is the most common cause of blindness, kidney failure and need for dialysis, and non-traumatic amputations of the lower extremities. In addition, patients with diabetes have a three-times greater chance to require hospital care compared to people without diabetes.

A large number of studies in hospitalized patients have reported that high blood sugar in patients with and without diabetes is associated with increased risk of complications, hospital costs, and

death. Treatment of high blood sugar results in lower risk of complications. Insulin is the best way to control high blood sugar in the hospital. During the past decade, our research team at Grady and Emory University has reported several landmark research studies on the treatment of diabetes and high blood sugar in the hospital. Our studies have shown that improved control of high blood sugar improves clinical outcome and significantly reduces the risk of infection and complications. Our team also reported on different insulin and non-insulin based treatments for the management of high blood sugar and diabetes in hospital patients.

The ACTSI sponsors our diabetes research program providing support for collecting blood samples and the space to follow a large number of research patients with diabetes.

## HOW CAN I PARTICIPATE IN RESEARCH?

### *Picture This...*

you have just been diagnosed with a disease, your doctor provided you with the most up-to-date information he or she has, and wrote you a prescription for medication to treat your disease. You leave the doctor's office feeling confident that you will get better. But, where did the doctor get his information? Who developed this medication? Research is the answer.

In order to learn about diseases and medications, we need to do research. And to do research, we need people willing to volunteer. ResearchMatch is a national list developed to help connect willing volunteers with researchers searching for people to become involved in their research. It is free and you choose whether or not you ever want to participate in any studies for which you may qualify. To find out more go to [www.researchmatch.org](http://www.researchmatch.org).



Carolyn D. Rudy, AS, Research Specialist  
at ACTSI's Clinical Research Site, Emory University Hospital



## HOW MECHANICAL HEART FORCE MEASUREMENTS CAN PROVIDE EARLY DETECTION OF HEART PROBLEMS



Omer Inan, PhD  
Assistant Professor of Bioengineering, School of  
Electrical and Computer Engineering  
Georgia Institute of Technology

Cardiovascular disease (CVD) and diabetes are related. According to the American Heart Association, CVD and stroke are the leading causes of death and disability for people with type 2 diabetes, and if you have diabetes you are at risk for CVD. Researchers in Electrical and Computer Engineering at Georgia Tech are working with researchers at the Prevention Research Center, Morehouse School of Medicine (MSM), to create new sensing systems that can provide early detection of cardiovascular health problems, such as high blood pressure or a weakened heart. This fits in well with existing technology at Georgia Tech, where we are working on better understanding the small vibrations of the body in response to the heartbeat, and how those vibrations relate to the mechanical health of the heart and arteries.

This mechanical heart force measurement is called ballistocardiography, or BCG, and was first discovered in the early 1900s, then pioneered in the 1930s-1950s; unfortunately, by the 1960s the BCG was largely stopped due to the need for large equipment for measuring the signals, and the invention of medical imaging. The Inan Research Lab at Georgia Tech focuses on better understanding these signals, in particular how the signals can be measured without being burdensome for the users. The signals allow us to obtain early detection of problems, and build sensors into normal everyday places to allow these measurements to be taken in locations that are convenient for them rather than only the clinic or hospital. This could mean that health monitoring and screening could be brought to the community, and allow for more often, cheaper, and accurate assessment of heart health, leading to better treatments and preventative measures to keep people living longer and healthier lives.

To learn more, contact [omer.inan@gatech.edu](mailto:omer.inan@gatech.edu).

The Atlanta Clinical & Translational Science Institute (ACTSI) of Emory University, with partners Morehouse School of Medicine (MSM) and Georgia Institute of Technology (Georgia Tech), is one of a national consortium striving to improve the way biomedical research is conducted across the country. The consortium, funded through the National Center for Advancing Translational Sciences, part of the National Institutes of Health's Clinical and Translational Science Awards (CTSA), shares a common vision to translate laboratory discoveries into treatments for patients, engage communities in clinical research efforts and train the next generation of clinical investigators. Through the Emory, MSM, and Georgia Tech partnership, laboratory and physician investigators and educators can accelerate the pace of bringing basic research findings to patients and communities.

**CTSA** Clinical & Translational<sup>®</sup>  
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**Our Mission**

Through focused education and training, innovative support of discovery, and ethical community engagement, the collaborative partners of the Atlanta Clinical & Translational Science Institute rapidly and efficiently translate scientific discoveries to impact all populations of the Atlanta community and beyond.