Federal Grant Funds Study on Wireless Health Monitoring

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by: Pat Hernandez

Rice University, the Methodist Hospital Research Institute and an East End non-profit are participating in a study of in-home health management and next-generation wireless networks. The one and a half million dollar grant by the National Science Foundation will examine ways to provide novel, low-cost personalized health monitoring to people with chronic diseases.

The idea is to get monitoring for chronic conditions into the home by using technology that didn’t exist ten years ago. Dr. Clifford Dacso at Methodist Hospital and the executive director of the Abramson Center says it was a matter of unearthing 1950s physiology and combining it with 21st century communications technology developed at Rice:

"Years ago, in the great dot-com extravaganza there were all these efforts to put a essentially computerized doctor. Some chip or computerized technology that would do diagnosis, that would recommend therapy. All you do is type in your symptoms and out comes a pill. That’s not what this is designed to do. This is designed to give you a very specific piece of information in a very specific condition, that will arm you with more information to understand what your own body is doing. So, it is to augment the relationship that you have with the health care system, not supplant it".

Technology for All, a Houston non-profit that operates the TFA-Wireless Network in east Houston’s Pecan Park. Will Reed, president and CEO says the blue box devices will help patients with congestive heart failure, asthma or metabolic syndrome be more involved in their care:

"We're looking for folks that may have these problems but, what we're really trying to test is the ability to calibrate the system, the ability to send data back and forth in a secure way to the hospital, and also the community piece and that is, how can you raise up within a community persons that can also serve as community health advocates.

Dr Dacso says they're looking at people’s response to illness:

"Your heart failure and my heart failure and the guy down the street's heart failure are different heart failures. That is very instructive for a person to be able to assess their own response to the environment, their own response to diet, and take charge of their own health and prevent these episodes when possible. The only that can be done is if information is reflected back to the user as to what's going on with their body."

The broadband wireless network that provides free, high-speed internet service in Pecan Park involves dozens of interconnected wireless transmitters throughout the neighborhood. It is hoped that the MESH technology being tested will someday be used city wide.


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