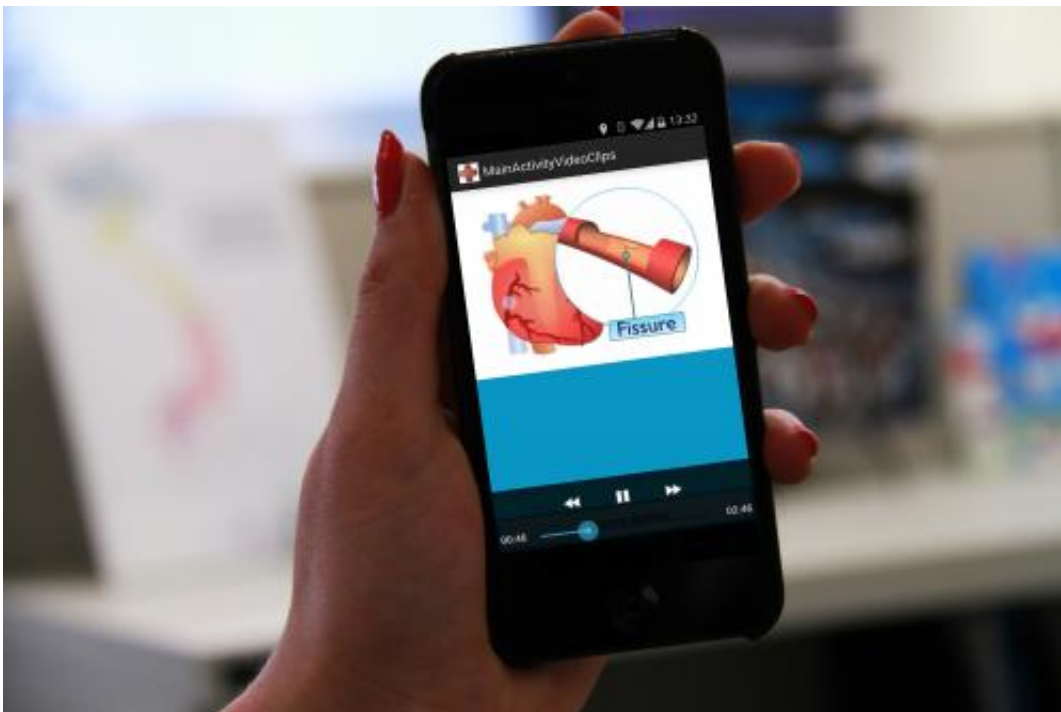


Smartphone app a life saver for heart attack patients

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The app contains multimedia that educates patients about disease symptoms and management.

A clinical trial found that cardiac patients who undertook rehabilitation in their own homes via the smartphone app were almost 30 per cent more likely to take part in their rehab program than those who had to travel to an outpatient clinic or centre.

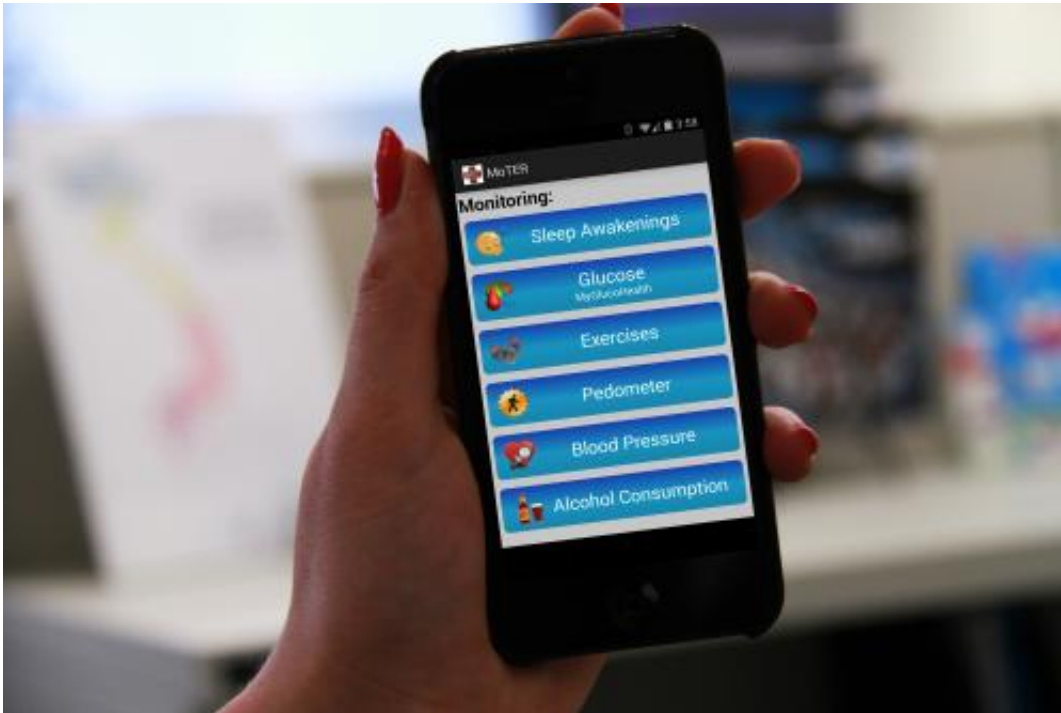
What's more, those who used CSIRO's smartphone home care delivery model – known as the Care Assessment Platform – were 40 per cent more likely to adhere to the program and almost 70 per cent more likely to see it through to completion.

The trial results, which showed that the Care Assessment Platform model was just as clinically effective as traditional rehab, were so successful that the next generation version of the platform will soon be offered in a number of Queensland hospitals including Ipswich, Metro North and West Moreton Hospital and Health Services.

According to Dr Mohan Karunanithi from CSIRO's Digital Productivity Flagship, studies have clearly shown that [patients](#) who successfully complete cardiac rehabilitation following a heart attack have much better health outcomes.

They are less likely to have another cardiac event, be readmitted to hospital or die from their condition.

"These programs traditionally take the form of group-based exercise and educational activities and are designed to help patients return to an active, satisfying life," Dr Karunanithi said.



The app features health and exercise monitoring tools.

Despite the benefits, uptake is generally poor due to factors such as time constraints, accessibility, lack of referral and patient motivation.

"The [smartphone app](#) offers another choice, overcoming one of the key barriers to patient participation and recovery. By integrating rehab with a patient's daily life, they are more likely to complete the program and make their new healthy lifestyle permanent," Dr Karunanithi said.

The app features health and exercise monitoring tools, delivers motivational materials through text messages and contains multimedia that educates patients about disease symptoms and management.

With cardiovascular disease killing one Australian nearly every 12 minutes, Rachelle Foreman, Health Director at the National Heart

Foundation of Australia, is very optimistic about the potential for this new technology.

"While more people are surviving their heart attacks, survivors need to understand they are not 'fixed' but are living with a chronic condition that needs to be actively managed," Ms Foreman said.

"Evidence shows cardiac rehabilitation programs play a huge part in helping people to recover from their heart attack, make lifestyle changes and adhere to medications to reduce their risk of another [heart attack](#)."



Cardiovascular disease kills one Australian nearly every 12 minutes.

"Unfortunately, more than half of patients are not referred to [cardiac rehabilitation](#) programs, so the system first needs to let patients know about the importance of such programs and then provide them with flexible options that suit their individual lifestyle and learning style.

"Programs such as the Care Assessment Platform are great innovations that can improve access and outcomes in a cost effective way and be expanded for those in rural areas, and high risk groups including Aboriginal and Torres Strait Islander people."

The next step for the research team is to adapt the platform for rehabilitation for other chronic conditions such as pulmonary disease and diabetes.



Patients who used the smartphone app were almost 30 per cent more likely to take part in rehab.

The clinical trial was conducted by CSIRO and Queensland Health through the Australian eHealth research Centre.

It took place at The Prince Charles, Redcliffe and Caboolture hospitals and has been published in the journal *Heart* and reported in *Nature Reviews Cardiology*.

Provided by CSIRO

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