

# Trial shows 'high tech' approaches help reduce diabetes-related complications

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As global rates of diabetes escalate, a new computerised self-care system

for people with Type 2 diabetes has been shown to significantly improve diabetes control and mental health-related quality of life, according to a global health expert.

Professor Brian Oldenburg, Head of the [Global Health](#) and Society Unit at Monash University, said the Australian TLC Diabetes program was a high tech system providing follow-up and support that enables people to self-manage their chronic diabetic condition.

It is estimated that 40 per cent of people with diabetes have poor glycaemic ([blood sugar level](#)) control, significantly increasing their risk of costly and debilitating diabetes-related complications.

Professor Oldenburg said on average a person with diabetes spent about six hours a year in the doctor's office or with other [health professionals](#), and 8,760 hours on their own monitoring blood sugar, taking insulin and other medications and managing diet, physical activity and stress.

"Living with diabetes and managing all of the required self-care is very stressful. Many people struggle to maintain a routine that is optimum for their health," Professor Oldenburg said.

"We know that with chronic conditions like diabetes there is a lot of evidence of increased risk of depression and anxiety. People experiencing significant levels of distress will often have poor self-management of their diabetes.

"We have found that as people gain greater control using the TLC system, their [psychological health](#) also increases. Additionally, it is a means of screening people who could benefit from the intervention of a health psychologist."

The Australian TLC Diabetes program is an automated and interactive,

24 hour telephone system designed to provide 'virtual' telephone encounters between people with diabetes and health professionals. It uses new technology to send participants' [blood glucose](#) results from a mobile phone to the computerised telephone system, and provides feedback on the results. It also gives feedback and advice on diet, medications and daily exercise to assist in the control of diabetes.

The trial showed the TLC program led to improvements in diabetes management, with significant benefits to mental health functioning and improved glycaemia control. Maintained long term, such results could be expected to lead to important reductions in diabetes complications and mortality.

"We need to urgently develop new ways of helping individuals to more effectively self-manage their chronic conditions," Professor Oldenburg said.

"We are currently investigating ways of scaling up the Australian TLC Diabetes system to make it available to many thousands of Australians with diabetes. We also want to develop similar programs for other [chronic conditions](#) so that people can access these 24 hours a day, seven days a week."

An estimated 1 million Australians already have diabetes and worldwide there are almost 400 million people with diabetes.

Provided by Monash University

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