HEALTHY LIVING APPS

IS THERE AN (EFFECTIVE) APP FOR THAT?

Today there's just about an app for everything from socialising, to banking, to health and wellbeing. But do they work? VicHealth reviews more than 200 smartphone apps for their effectiveness in helping people lead healthier lifestyles.

Australia has one of the highest rates of smartphone ownership globally. A 2014 study by Deloitte, Touche Tohmatsu found that 81% of Australians now own a smartphone. As of July 2015, 1.6 and 1.5 million apps were available to Android and Apple users, respectively.[1]

Health and wellbeing apps are hugely popular among smartphone users. A simple search using the key words 'health' and 'wellbeing' in the Apple and Android stores returns over 58,000 apps ready for download. So how do we separate the good from the not-so-good? What guidelines and ratings are in place to ensure consumers can make informed decisions and choose an app that can assist in achieving their goals?

Healthy living apps hold promising potential to influence behaviour change with the ability to transcend socio-demographic and geographic barriers, and reach large audiences. Smartphone apps are highly appealing because of their portability, engaging user experience design and context specific advice.

Despite their popularity and the commercial investment in app development, there is a paucity of evidence-based guidelines available to those interested in developing apps and for consumers using them.

In a world-first, VicHealth released its research on the effectiveness of apps in influencing behaviour change. Its rigorous study has resulted in the first evidence-based set of guidelines and ratings for health and wellbeing apps.

VicHealth CEO Jerril Rechter said that the aim of the rating system is to separate effective apps with evidence-based design from those which lack the ability to achieve positive behaviour change. "Traditionally, consumers and app developers have relied on in-app

user ratings or app store reviews to determine effectiveness and value – this is not enough," said Ms Rechter. "VicHealth's review aims to provide a reliable way for users to view and choose the best health promoting apps for their purpose, based on evidence they can trust.

The VicHealth study provides valuable insight for two specific and important groups – developers and consumers.

As part of the initiative, a comprehensive set of guidelines for developing healthy living apps was formed; *Guidelines for creating healthy living apps*. The guidelines are suitable for those with little knowledge about software development and also those who may be new to health promotion or behaviour change initiatives.

The guidelines provide a clear framework outlining key factors for consideration in the early stages of app development; these include the purpose, the problem the app seeks to solve, the goals, its features and strategy.

Until now, the true effectiveness of health and wellbeing apps for consumers has not been measured according to the contemporary science of behaviour change.

To help Australians better understand the range of apps available, a rigorous six-step screening, review and rating of 200 health and wellbeing apps was conducted, and the *Healthy Living Apps Guide* released. Apps were included in the study if they identified as being able to help the user achieve a healthier lifestyle by:
– eating more healthily
– being more physically active
– quitting smoking
– drinking less alcohol
– improving diet and wellbeing.

From a comprehensive review of research in this area, two common critical criteria were identified:
– Functionality – is the app user-friendly?
– Impact on behaviour – does the app help users to adopt new actions to achieve a healthier lifestyle?

The MARS (Mobile App Rating Scale)[2] was used to rate the apps' functionality and the CALO-RE Taxonomy[3] assessment tool was used to rate behaviour change effectiveness, with each app being reviewed and scored by at least two technical experts and two public health experts.

The overall app rating score was calculated by averaging the functionality and behaviour change effectiveness scores into one score out of five. All three scores for each app (functionality, behaviour change effectiveness and the overall rating) were then rated using a 5-star rating system.

Some other key app features were also examined and described for each app on the website:
– requires add-ons to use the app, and whether this is a one-off purchase e.g. a fitness band, or an ongoing purchase e.g. subscription
– is free of in-app purchases i.e. product purchases made within the app such as extra features e.g. unlocking additional videos, or removing ads
– allows data exports
– has social media integration i.e. allows sharing to Facebook, Twitter, other social media channels
– has an associated app community
– sends reminders.

The study revealed that many apps rated well in terms of functionality but did not achieve high ratings on their potential to help users change their behaviour.

Dr Annemarie Wright, VicHealth Principal Program Officer, Knowledge said that from a behavioural change perspective, ratings were low. "The top score was three out of five. Less than one in twenty apps used important techniques such as encouraging practice, problem solving, and generalising behaviours to everyday life. This meant, while many apps employed a wide range of evidence-based techniques, they commonly lacked the comprehensiveness of intervention required for sustainable behaviour change. Used as a stand-alone tool, apps aren't as good as some of the most effective research-based interventions," said Dr Wright.

The majority of health and wellbeing apps were found to be concerned with the promotion of physical activity.

APPS THAT RATED BEST INCLUDE:

• 'Freeletics – Workout and Training' which offers personalised programs for all fitness levels, includes video tutorials and an app community.

• 'Quit Now: My Quit Buddy' offers helpful tips and distractions to overcome cravings, allows you to set goals and keep friends on-call to keep cravings at bay.

• 'Get Some Headspace' is a meditation app which teaches the basics of meditation with sessions ranging from 2 to 60 minutes.

• 'Water Balance: Hydration tracker with goals and reminders', the name says it all. Track your water, alcohol, coffee and juice consumption and see how they impact your hydration levels.

"Our ratings do not reflect individual, subjective user experience, which may be significantly more positive. There are no quick fixes when it comes to health-related behaviour change and it would be naïve to expect new technologies such as smartphone apps to act as silver bullets. However, with a current score of C+ at best, there's clearly a lot of room for improvement in the application of health-related behavioural science to the design of smartphone apps," said Dr Bruce Bolam, VicHealth Executive Manager, Programs.

As well as reviewing the potential effectiveness of apps, ratings have been published and will be updated annually. Visit **vichealth. vic.gov.au/apps** to find comprehensive ratings of over 200 apps or download guidelines and read more about the study. ∎

VICHEALTH'S TOP TIPS FOR CHOOSING A HEALTHY LIVING APP

1. Make sure the app is enjoyable to use
You will use an app more often if you find it enjoyable and engaging. It will also make it feel like less of a chore!

2. Find an app that suits your needs
There are many apps available so choose one that suits your needs. For instance, choose an app that's suitable for your age, fitness levels or accessibility needs.

3. Choose an app supported by someone you trust
Not all apps have the same quality of information. Choose an app that is made or supported by an organisation that you trust.

4. Use an app that supports what you already have
Find an app you can incorporate with equipment you already have access to. For example, if you already have a fitness tracker device, exercise equipment or access to gym facilities (such as a swimming pool), pick an app that can be used in conjunction with these. You can always upgrade or change later on.

5. Make sure the app allows you to create and modify your own goals
Setting yourself a goal will help you to build healthy habits and stick to them, such as doing more physical activity next week.

6. Choose an app that lets you track your behaviour
Keeping a record of your behaviour will help you change it! For example, you can choose an app that displays the times you go on walks, on what days and at what intensity. There are many apps that let you track your behaviour.

7. Choose an app that shows you how to do an activity
If you don't know how to perform an activity, watching it being done will help you to get started.

8. Use an app that allows you to share your progress with your friends, whether this is through social media or other users of the app community
Having support from other people will help you achieve your goals.

9. Find an app that has notifications
Let the app remind you of when you had planned to go for a walk or eat a piece of fruit instead of that snack! This will help you build habits and stick to your plans.

10. Choose an app that rewards you when you succeed
Getting a reward for doing a specific activity will help reinforce it. This could be as simple as praise and encouragement or your name appearing on a leader board.