



LIFE! PROGRAM EVALUATION OVERVIEW 2019-20



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In this document, 'Aboriginal' refers to both Aboriginal and Torres Strait Islander people. 'Indigenous' or 'Koori/Koorie' is retained when part of the title of a report, program or quotation.

Available at <https://www.lifeprogram.org.au/>

The *Life!* Helping you prevent diabetes, heart disease and stroke (*Life!*) program is a lifestyle modification program, aimed at reducing the effect of risk factors and contributing to decreasing the incidence of type 2 diabetes and cardiovascular disease (CVD).

The program comprises:

- Group-based in-person interventions:
 - *Life!* Mainstream Group Course (hereafter Group Course)
 - Culturally and Linguistically Diverse (CALD) *Life!*
- Individual Telephone Health Coaching services (THC)

All sub-programs consist of seven sessions over 12 months.

Due to the COVID-19 pandemic, Alternate Delivery Options (ADOs), to the traditional group-based in-person sessions, were introduced for participants attending the Group Course and CALD programs from 21 April 2020. This allowed many participants to continue to attend the program.

Evaluation purpose and scope

The 2019-2020 *Life!* program evaluation is an impact evaluation. The purpose of the evaluation is to assess the effects of the program on participant related outcomes. The evaluation addresses the following questions:

- Was the *Life!* program effective in improving participants' behavioural (diet and physical activity), physical (weight and waist circumference), and bio-medical (systolic and diastolic blood pressure) outcomes?
- Did participants achieve the goals designed by the program¹?

- Did participants increase knowledge of risk factors for developing type 2 diabetes and CVD?
- Did participants increase skills and make positive changes regarding diet and physical activity?
- Were participants satisfied with the *Life!* program?

The evaluation sample (2019-2020 cohort) consists of participants completing Introductory Session between 1 July 2019 and 30 June 2020. These participants attended Group Course, CALD and THC programs (hereafter Group Course, CALD and THC participants).



A *Life!* Healthy Living Session at Moonee Valley Council

Evaluation methodology

A mixed-methods approach was employed. Quantitative and qualitative data included participants' socio-demographic information; behavioural, physical and bio-medical outcomes; goal achievements; and feedback on the *Life!* program. Statistical tests were conducted to examine changes in the outcome measures from Introductory Session (baseline) to Session 5/Follow-up Call 4 and from baseline to the 12-month Session/Call as appropriate.

Sub-group analyses were conducted for Group Course and CALD participants experiencing the COVID-19 pandemic (namely the COVID-19 cohort defined as those attending ADOs since 21 April 2020). Two-tailed p value <0.05 was accepted as statistically significant.

¹ Healthy eating goals: 1) decrease fat consumption – no more than 30% of energy; 2) decrease saturated fat consumption – no more than 10% of energy; 3) increase fibre consumption – at least 30 g every day; and 4) decrease sodium consumption – no more than 2000 mg per day (5 g salt per day). Physical activity goal: at least 30 minutes moderate activity per day. Weight loss goal: decrease weight by at least 5%.

Evaluation findings

The 2019-2020 cohort (in total 4938 participants) included 3678 Group Course, 341 CALD and 919 THC participants completing Introductory Session between 1 July 2019 and 30 June 2020. The overall program uptake decreased by 18.2% compared with 2018-2019 (6055 in total: 4939 Group Course, 511 CALD and 589 THC participants), while the THC uptake increased by 56%.

In this evaluation, 4932 participants (3674 Group Course, 340 CALD and 918 THC participants) with valid data at baseline were included for analysis. The mean (SD) age of the participants was 59.5 (15.0) years and 70.1% (n=3457) were women. The *Life!* program reached participants from:

- 77 Victorian Local Government Areas (LGAs)
- Disadvantaged/hotspot LGAs (n=2056; 41.7%)
- Non-English-speaking (NES) countries (n=1184; 24.0%)
- Rural/regional areas (n=1429; 29.0%)
- Aboriginal backgrounds² (n=53; 1.1%).

In 2019-2020, retention rates³ at Session 5/Follow-up Call 4 were 57.6% for Group Course, 32.2% for CALD, and 64.6% for THC programs. Compared with 2018-2019, the retention rates for both Group Course and CALD programs increased marginally by 1%. However, the retention rate decreased by 6.8% for the THC program.

The national and subsequent state restrictions in response to the COVID-19 pandemic did have an impact on the overall uptake of the *Life!* program in 2019-2020.

However, the provision of ADOs enabled 434 Group Course participants to complete Session 5 via an online option, which has contributed to the retention of the Group Course program in 2019-2020. The reason why the THC retention decreased in 2019-2020 will require further investigation.

Program effects on participant related outcomes in 2019-2020

As at 1 August 2020 when the data were collected, 1053 Group Course, 29 CALD and 306 THC participants in the 2019-2020 cohort completed Session 5/Follow-up Call 4.

Changes in the outcomes from Introductory Session to Session 5/Follow-up Call 4

Table 1: Behavioural outcomes: diet, physical activity and sedentary behaviours

Statistically significant changes in the outcomes from Introductory Session to Session 5/Follow-up Call 4			
	Group Course	CALD	THC
Significant increase in mean fat/fibre score	3.18 vs. 3.58; p<0.001	2.93 vs. 3.46; p<0.001	3.08 vs. 3.74; p<0.001
Significant increase in diet confidence score	3.50 vs. 3.73; p<0.001	Data not collected	3.36 vs. 3.88; p<0.001
Significant increase in total physical activity minutes/day	27.6 vs. 36.6; p<0.001	9.8 vs. 12.2; p=0.012	26.1 vs. 48.5; p<0.001
Significant increase in physical activity confidence score	3.27 vs. 3.44; p<0.001	Data not collected	2.92 vs. 3.67; p<0.001
Significant decrease in sitting hours/weekday	8.2 vs. 7.3; p<0.001	Not significant; 6.5 vs. 6.2; p=0.366	7.2 vs. 6.3; p<0.001

Note: A p-value < 0.05 means statistically significant (applying to Tables 2-4).

² Some individuals with aboriginal backgrounds attended the Group Course, CALD or THC program.

³ Session retention rate = completed cases / (completed cases + withdrawn cases between session 1/Initial Call and the session examined).

Table 2: Physical outcomes: weight and waist circumference from Introductory Session to Session 5/Follow-up Call 4

Statistically significant changes in the weight and waist circumference from Introductory Session to Session 5/ Follow-up Call 4			
	Group Course	CALD	THC
Significant decrease in participants' weight (kg)	82.0 vs. 80.3; weight loss 1.7kg; p<0.001	Not significant; 81.4 vs. 81.0; p=0.617	89.4 vs. 86.4; weight loss 3.0kg; p<0.001
Significant decrease in waist circumference (cm)	101.5 vs. 98.8; waist size reduction 2.7cm; p<0.001	Not significant; 104.8 vs. 103.3; p=0.127	104.6 vs. 100.4; waist size reduction 4.2cm; p<0.001

Table 3: Bio-medical outcomes: blood pressure measures

Statistically significant changes in bio-medical outcomes from Introductory Session to Session 5/Follow-up Call 4			
	Group Course	CALD	THC
Significant decrease in systolic blood pressure (mmHg)	131.7 vs. 130.0; p=0.034	Not significant; 128.6 vs. 127.3; p=0.775	125.2 vs. 123.6; p=0.007
Significant decrease in diastolic blood pressure (mmHg)	80.7 vs. 79.2; p=0.001	Not significant; 77.4 vs. 75.3; p=0.646	80.7 vs. 78.9; p=0.001

Table 4: Program goal achievements

Statistically significant increase in achieving the program goals from Introductory Session to Session 5/Follow-up Call 4			
	Group Course	CALD	THC
Significant increase in the proportions of participants achieving the healthy eating goal	11.9% vs. 40.5%; p<0.001	6.9% vs. 27.6%; p=0.07	10.8% vs. 50.3%; p<0.001
Significant increase in the proportions of participants achieving the physical activity goal	11.7% vs. 17.8%; p<0.001	Not significant; 10.3% vs. 3.4%; p=0.50	12.4% vs. 26.1%; p<0.001
Proportions of participants achieving the weight loss goal at Session 5/ Follow-up Call 4	18.3% (n=178)	13.8% (n=4)	30.6% (n=87)

Trends in some outcomes from Introductory Session to the 12-month Session/Call

Due to a small number of participants completing the 12-month Session/Call in the 2019-2020 cohort at the evaluation, we examined the 2018-2019 cohort that completed the 12-month Session/Call in 2019-2020 to look at trends in some participant outcomes. In the 2018-2019 cohort, 1382 Group Course, 141 CALD and 225 THC participants completed the 12-month Session/Call by the time the evaluation data were collected. Repeated measures analyses show that some participant outcomes including mean fat/fibre score in THC participants, and waist circumference in Group Course and CALD participants, had continuing improvements across Introductory Session, Session 5/Follow-up Call 4 and 12-month Sessions. In addition, weight (for all three groups of participants) and waist circumference (for THC participants) had statistically significant improvements from Introductory Session to Session 5/Follow-up Call 4 and then maintained to the 12-month Session/Call.



Life! Facilitator Stephanie Aalders (left) with participants Solheil, Hitendra and Pili

Participants' feedback on the *Life!* program at Session 5/ Follow-up Call 4

Of the *Life!* participants providing feedback, 95.2% (n=1227) reported increasing knowledge of risk factors for developing type 2 diabetes and CVD, followed by 93.8% (n=1209) increasing skills in healthy eating and 90.2% (n=1137) making positive changes to diet⁴. In comparison, 89.0% (n=1148) of *Life!* participants reported increasing skills in doing physical activity and 84.6% (n=1066) making positive changes to physical activity⁴. Further, 96.7% (n=1219) of *Life!* participants rated the program as "very good" or "excellent"⁴.

Program effects on participant related outcomes in the COVID-19 cohort

The COVID-19 cohort was a subgroup of the 2019-2020 cohort, which consisted of 434 Group Course and one CALD participants. These participants completed Session 5 by attending ADOs during the COVID-19 pandemic (21 April – 1 August 2020). From Introductory Session to Session 5, there were statistically significant improvements in most outcomes, including:

- Mean fat/fibre score (3.16 vs. 3.57; $p<0.001$) and diet confidence score (3.55 vs. 3.77; $p<0.001$)
- Total physical activity minutes/day (29.7 vs. 34.6; $p<0.001$), physical activity confidence score (3.31 vs. 3.43; $p=0.022$), and sitting hours/weekday (8.6 vs. 8.1; $p<0.001$)
- Weight (kg) (78.6 vs. 76.9; weight loss 1.7 kg; $p<0.001$) and waist circumference (cm) (99.2 vs. 97.1; waist size reduction 2.1 cm; $p<0.001$)
- Systolic blood pressure (mmHg) (133.0 vs. 126.2; $p<0.001$).
- However, there was no statistically significant improvement in diastolic blood pressure (mmHg) (78.3 vs. 76.2; $p=0.055$).

There was also a statistically significant increase in the proportion of participants achieving the healthy eating goal (10.1% vs. 36.6%; $p<0.001$), but not the physical activity goal (12.6% vs. 13.1%; $p=0.337$). In addition, less than 15% (n=65) of the participants achieved the weight loss goal.

Regarding these participants' feedback, 96.1% (n=418) reported increasing knowledge of risk factors, 95.9% (n=417) increasing skills in healthy eating, 90.8% (n=395) increasing skills in doing physical activity, 90.3% (n=392) making positive changes to diet and 82.5% (n=358) making positive changes to physical activity. Finally, 98.7% (n=428) of the participants rated the program as "very good" or "excellent".

Conclusions

The evaluation findings of the 2019-2020 cohort demonstrate that the *Life!* program is effective in improving all outcomes examined in both Group Course and THC participants. The sample size for CALD participants may be inadequate to detect true program effects on the outcomes. While the program is effective in improving most outcomes of participants in the COVID-19 cohort, the pandemic may have reduced the program effects on some outcomes such as diastolic blood pressure, achievement of the physical activity and weight loss goals, and making positive changes to physical activity. Regardless of participant groups, the *Life!* program appears to be more effective in improving diet related outcomes compared with physical activity related outcomes.

Trends analyses using the 2018-2019 cohort that completed the 12-month Session/Call in 2019-2020 identified continuing improvements in the mean fat/fibre score in THC participants, and waist circumference in Group Course and CALD participants from Introductory Session to the 12-month Session/Call. These findings demonstrate the *Life!* program's effects on helping participants sustain improvements in these outcomes over 12 months.

The *Life!* participants are positive about the program helping them increase knowledge of risk factors for developing type 2 diabetes and CVD, and increase skills and make positive changes

⁴ Behavioural change data relating to diet and physical activity and satisfaction data were not collected from CALD participants in 2019-2020 and will be collected in 2020-2021.

regarding diet and physical activity. Moreover, the *Life!* participants are satisfied with the program: 96.7% of participants in the 2019-2020 cohort and 98.7% in the COVID-19 cohort rated the program as “very good” or “excellent”.



Life! Facilitator Nicole French

Recommendations

Based on the evaluation findings, key recommendations are proposed for 2020-2021, including:

Increase the uptake of ADOs

In 2019-2020, compared with 2018-2019, the uptake of the Group Course and CALD programs decreased by 26.3%. With ADOs continuing to be provided for both groups of participants during or post the COVID-19 pandemic, strategies should be explored to increase the uptake of ADOs in 2020-2021.

Improve program reach for participants from rural/regional areas

In 2019-2020, the program did not meet the target of reaching participants from rural/regional areas. Interviews and/or focus groups are required to understand the needs of this priority population, in order to develop targeted strategies to improve the program reach.

Increase program recruitment and retention

Efforts are needed to improve the recruitment and retention of all three *Life!* subprograms. The retention rates at Session 5/Follow-up Call 4 for Group Course, CALD, and THC programs were

57.6%, 32.2% and 64.6%, respectively. One of the main reasons for these unsatisfactory retention rates were that participants were not interested in the program. These findings suggest the need to review the program content, program offering and delivery of the 12-month Session/Call. A six-month trial of participant incentives whilst the COVID-19 restrictions are still in place could be explored to identify whether incentives could improve recruitment and program retention. In addition, the *Life!* team is working with the Ethnic Communities Council of Victoria (ECCV) to identify barriers and develop solutions to improve participation and retention for CALD communities. Finally, it is anticipated that offering participants catch-up sessions via the stage 2 online platform which is currently under development will contribute to improving program retention.

Develop strategies to improve physical activity outcomes

The program appears to be less effective in improving participants' physical activity related outcomes compared with diet related outcomes, regardless of participant groups. Consultations or interviews with *Life!* participants and the external workforce should be undertaken to understand the barriers obstructing *Life!* participants to do physical activity, and the challenges facing the external workforce to help their participants achieve the physical activity goal.

Continue to improve data quality

Whilst the data quality improved in 2019-2020 compared with 2018-2019, there is a need to continue to monitor the data regularly and improve data quality in 2020-2021. Education for the external workforce will ensure that they collect accurate data, enter the data correctly and on time, and deliver program sessions within required timeframes. These are essential to improving the data quality and will enable us to produce robust evaluation findings.

For more information about the *Life!* program evaluation overview please contact

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Life! program participants



Life! participant story – Goya

Goya was referred to the *Life!* program in May 2020. Here she tells us how the program has helped her to improve her physical and mental health.

I found out about the *Life!* program when I went to see my doctor. We did a short questionnaire which showed I was at high risk of developing type 2 diabetes within 5 years. The doctor suggested that I have blood tests and the results showed that, although I was generally healthy, I had slightly high blood fat and was severely lacking in vitamin D.

I decided it was time to do something, so I was delighted when the doctor told me that a free program called *Life!* was about to start at my local medical centre. The program was great. My *Life!* Facilitators were awesome, and I felt I had support from so many experts. I was impressed by how much the program covered. It helped me to think positively and taught me about mindful eating, reducing stress and relaxation.

Hearing about the national guidelines for exercise was an eye-opener for me, and I found that exercising and eating well really benefited my mental health. I learnt not to seek perfection but just try to balance the books as best I can and keep moving forward. I also learnt to surround myself with positive people.

The online tips were really useful, for example, looking at a menu before going to a restaurant to think about the healthier options and modifying recipes to be healthier. Topics like managing lapses, not beating yourself up and handling the festive season were useful and timely. In a general sense, I learnt that small changes lead to big results.

The *Life!* program has worked for me. I feel a million times better mentally and physically. My blood pressure has dropped and I've lowered my risk of developing type 2 diabetes. For me, the *Life!* program has been life changing.



Life! participant story – Robert

Robert completed the *Life!* group course in 2014. The information he learned during the program has helped him stay healthy during COVID-19 and he has been able to maintain good health, despite the many challenges the pandemic has presented.

It's been several years since I completed the *Life!* program but what I learned is still very much with me today. I truly feel that if I had not participated in the program I simply would not have the mindfulness, knowledge and strategies to get through this time as well as I am currently able.

Since COVID-19 really began getting its hooks into us here in Australia and the enormity of the situation sunk in, I realised that along with a home 'staycation' came the very real potential to slip into bad habits with comfort food being the biggest threat to my wellbeing and waistline.

To prevent this from happening I keep myself busy doing maintenance around the house. Admitting that my dumbbell workouts had lapsed I now workout twice a day and I really feel great when I have finished. I also walk my dog, Oscar, and walk a little further than before the virus situation.

Now I have more time on my hands I have started trying out lots of new recipes. I enjoy cooking a greater variety of meals and challenge myself to make every meal I cook healthier than the one before.

It's hard to keep entirely away from the bad news reports and I have found myself becoming more stressed than usual. The exercise helps wonderfully but I have also found it really soothing to have a station called "Ambi Nature Radio" playing in the background, sometimes all day long. It has even helped get me off to sleep at times of heightened anxiety.



***Life!* Facilitator story – Wei Wang**

Wei Wang, one of our *Life!* Facilitators, is a registered intensive care nurse and works as a nurse educator at Monash Health NaMES (Nursing and Midwifery Education Strategies). Passionate about chronic disease prevention, he runs the Chinese *Life!* program.

What do you enjoy most about running the *Life!* program?

Being a *Life!* Facilitator is exciting and rewarding. I really love being in a role that allows me to support, coach and share knowledge and information with other people.

Over the last four months, I have been running CALD groups via Zoom, and I thoroughly enjoy listening to the participants' discussions and hearing their ideas. I love empowering them to make the lifestyle modifications that are most appropriate for their own circumstances and culture.

How have you found running the program during COVID-19?

It has been particularly rewarding during the COVID-19 pandemic, and the co-Facilitators and I are very glad to see that the *Life!* program can provide psychological and emotional support. Most of our participants (or their family members) experienced the stress of COVID-19 in both China and Australia. To quote a participant, "We played the first half in China, and now we are playing the second half in Australia."

Peer support from *Life!* program participants during lockdown is even more valuable, especially for CALD groups – their social life, which was already limited by the language barrier, is even more restricted.

What are some of the common challenges your participants face?

Changing your lifestyle is easier said than done. Every participant has a great deal of life experience and, when they start the program, they tell you that they know what is good and what is bad in terms of their health and their lifestyle. Some participants think that life will not be very enjoyable anymore if they live a totally healthy lifestyle.

As the sessions progress, they start to realise that small changes can make a huge difference. And then they can actually feel that difference. This makes them more open to new ideas and motivates them to be more active during and after the session.

Could you share any particular success stories?

One participant that comes to mind is a gentleman who had a heart attack last year. He has to sit at a desk all day at work and his diet is not ideal because of that. He is really keen to change his lifestyle but isn't sure how to do it. We had a great discussion about keeping active and eating healthily while having to stay at home. It was fun and suggestions included ping pong, tai chi and square dancing. All of these activities have such a positive impact on people's sleep, energy levels and mood.



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