LIFE! PROGRAM EVALUATION OVERVIEW 2018-19

Life! Evaluation Overview 2018-2019 – Main Messages

- The prevalence of type 2 diabetes and cardiovascular disease (CVD) is on the rise in Australia.[1,2] Preventing these chronic diseases is a critical public health issue.

- The risk of developing chronic disease is closely associated with modifiable behavioural risk factors, including poor nutrition, physical inactivity and sedentary behaviour. These in turn contribute to the biomedical risk factors: overweight and obesity, high blood pressure and high blood cholesterol levels.[3]

- The *Life!* Helping you prevent diabetes, heart disease and stroke (*Life!*) program is a lifestyle modification program that aims to reduce the effect of risk factors and contribute to decreasing the incidence of type 2 diabetes and CVD.

- The *Life!* team and Diabetes Victoria provide leadership and contribute to the collective effort for prevention in Victoria through the delivery of the *Life!* program.

- *Life!* is delivered as group-based in-person interventions or as an individual telephone-based health coaching service. Each consists of seven sessions over 12 months.

- Of the 2018-2019 cohort consisting of 6055 *Life!* participants[4] at risk of developing type 2 diabetes and CVD that completed Introductory Session, 5706[5] participants completed Session 1/Initial Call.

- The *Life!* program is run across Victoria with participants from 78 of the 79 Victorian LGAs and four acceptable non-Victorian LGAs.[6]

- In general, *Life!* participants have
  - improved diet quality
  - increased physical activity and reduced sedentary behaviour
  - increased confidence in sticking to healthy eating and being physically active
  - decreased weight, waist circumference and blood pressure.

- The *Life!* participants have also
  - increased knowledge of risk factors for developing type 2 diabetes and CVD
  - increased skills in healthy eating and doing physical activity
  - made healthy behavioural change regarding eating habits and physical activity
  - rated the *Life!* program as very good or excellent.

- Overall, the *Life!* program has achieved multiple positive participant outcomes and has the great potential to reduce the effects of multiple risk factors and contribute to decreasing the incidence of type 2 diabetes and CVD in the Victorian population in the long term.

"I feel more confident cooking healthy meals and feel so much better eating lighter meals. When I get the chance to exercise, I sleep better at night and overall I have more energy."

– Mala (participant)

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1 NDSS and Diabetes Australia. (2019). All types of diabetes. Melbourne Australia: NDSS and Diabetes Australia.
2 AIHW (2019). Cardiovascular disease. Canberra Australia: Australian Institute of Health and Welfare (AIHW)
3 GBD 2015 Risk Factors Collaborators. (2016). Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. Lancet, 388(10053), 1659-1724.
4 6055 *Life!* participants include 4939 mainstream Group Course, 589 THC, 511 CALD and 16 RTGH participants.
5 This number is based on the analysis of the data exported from Salesforce on 6 August 2019. It is likely to increase with time because some active participants will complete Session 1.
6 Acceptable non-Victorian LGA's: refer to LGAs at the border of Victoria. In 2018-19 evaluation, we identified participants from four NSW LGAs, including Albury, Dareton, Federation and Murray River.

Evaluation Overview

Objectives

The suite of *Life!* program interventions comprises three group-based in-person interventions and an individual telephone-based health coaching intervention:

- Group-based programs
  - *Life!* Mainstream Group Course (hereafter Group Course)
  - Culturally and Linguistically Diverse (CALD) *Life!*
  - Aboriginal Road to Good Health (RTGH)
- *Life!* Telephone Health Coaching service (THC).

Currently, for Group Course, CALD and THC, each intervention consists of seven sessions over 12 months. For RTGH, the intervention includes six sessions over six months.

This document represents the Evaluation Report of the *Life!* Helping you prevent diabetes, heart disease and stroke (*Life!*) program. It describes the evaluation outcomes of *Life!* participants, and program delivery and activities between 1 July 2018 and 30 June 2019.

The report provides evidence related to the following evaluative questions:

- How effective was the *Life!* program in achieving relevant participant outcomes and associated program goals?
- Did participants increase knowledge of risk for developing type 2 diabetes and CVD?
- Did participants increase skills in healthy lifestyle behaviours, including healthy eating and increasing physical activity?
- Did participants perceive having positive changes in healthy lifestyle behaviours?
- Were participants satisfied with the *Life!* program?

Methodology

This evaluation is focused on the effects of the *Life!* program on participant outcomes. The study participants, in total 6055, were those completing Introductory Session of Group Course (n=4939)[7], CALD (n=511), RTGH (n=16)[8] and THC (n=589) programs between 1 July 2018 and 30 June 2019. The data sources included:

1) Quantitative questionnaire data in relation to diet, physical activity and sedentary behaviour, weight and waist circumference (self-report for THC), and blood pressure measures; and

2) Qualitative participant feedback data regarding knowledge of risk factors, perceived skills and behavioural change relating to diet and physical activity, and satisfaction about the *Life!* program.

Descriptive analysis and where relevant statistical tests were conducted to examine those participant outcomes by Session 5/Follow-up Call 4 for Group Course, CALD and THC participants. Two-tailed p value less than 0.05 was accepted as statistically significant.

Findings

Conversion[9] and completion rates

In 2018-2019, conversion rates from Introductory Session to commencing the program (Session 1) were 95.9% for Group Course, 95.4% for THC, 96.6% for CALD and 100% for RTGH.

Completion rates for Group Course, THC and CALD by Session 5/Follow-up Call 4 were 56.1%, 71.4% and 31.3% respectively. This figure for RTGH by Session 4 was 87.5%.

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7 In actual analysis four Group Course participants were excluded due to not having valid/complete data.

8 Aboriginal Road to Good Health (RTGH) participant outcome data has not been included in this evaluation overview due to the sample size being too small.

9 Conversion rate = number of participants completing Session 1/Initial Call as a percentage of number of participants completing Introductory Session minus number of participants active at Session 1/Initial Call.

Effects of the *Life!* program on participant outcomes in 2018-2019

Healthy eating

The *Life!* program's 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 30g every day.
4. Decrease sodium (salt) consumption
   – no more than 2300 mg (6g salt).

"The Life! program has completely changed what is in my shopping basket."

– Soheil (participant)

Mean fat/fibre scores (range: 1-5) increased from 3.2 to 3.6 for Group Course participants, from 3.1 to 3.4 for CALD participants and from 3.1 to 3.7 for THC participants. The increase was statistically significant in all three intervention types of participants.

By Session 5/Follow-up Call 4, 42.4% (n=665) of Group Course participants, 24.7% (n=19) of CALD participants and 55.8% (n=106) of THC participants achieved the fat/fibre goal. There was a statistically significant increase in the proportion of participants achieving this goal in both Group Course ($p < 0.001$) and THC ($p < 0.001$) participants.

Physical activity level and sedentary behaviour

The *Life!* program's physical activity goal

5. Increase physical activity – at least 30 minutes of moderate activity[10] per day.

Levels of total physical activity[11] per day increased from 28.9 minutes to 36.1 minutes in Group Course participants, from 36.0 minutes to 47.7 minutes for CALD participants and from 24.7 minutes to 38.9 minutes for THC participants. The increase was statistically significant in both Group Course ($p < 0.001$) and THC ($p < 0.001$) participants.

By Session 5/Follow-up Call 4, 24.3% (n=380) of Group Course participants, 31.2% (n=24) of CALD participants, and 24.2% (n=46) of THC participants achieved the physical activity goal. There was a statistically significant increase in the proportion of participants achieving this goal in both Group Course ($p < 0.001$) and THC ($p < 0.001$) participants.

Both Group Course and THC participants also significantly reduced their sitting hours per weekday from 8.2 hours to 6.7 hours ($p < 0.001$), and from 7.1 hours to 5.9 hours ($p < 0.001$) respectively. CALD participants maintained sitting 4.3 hours per weekday during the same reporting period.

"The Life! program taught me how to take care of ME! I have dropped 4 dress sizes. My skin is great and I feel amazing with lots of energy! I can now walk, run, jump, skip and lift heavy weights."

– Pili (participant)

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10 Moderate physical activity minutes= moderate activities minutes + 2 × vigorous activities minutes (Du et al., 2019).
11 Total physical activity includes walking, moderate activities and vigorous activities.

Weight and waist

The *Life!* program's weight loss goal

6. Decrease weight - by at least 5%.

All three groups of participants decreased weight (kg) and waist circumference (cm). Weight loss was statistically significant in Group Course and THC participants while waist circumference reduction was statistically significant in Group Course, CALD and THC participants.

- Group Course: 2.0kg and 2.9cm
- CALD: 0.5kg and 1.4cm
- THC: 3.4kg and 4.5cm (self-report)

By Session 5/Follow-up Call 4, proportions of participants achieving the weight loss goal were 20.6% (n=326) in Group Course, 9.1% (n=7) in CALD, and 30.5% (n=58) in THC participants.

Blood pressure

Group Course and THC participants significantly reduced systolic blood pressure (SBP) (Group Course by 2.2 mmHg, $p<0.001$; THC by 5.4 mmHg, $p<0.001$) and diastolic blood pressure (DBP) (Group Course by 1.3 mmHg, $p=0.002$; THC by 2.9 mmHg, $p=0.001$). CALD participants reduced SBP by 2.6 mmHg and DBP by 2.5 mmHg, although neither change was statistically significant.

In addition, over 80-95% of the *Life!* participants agreed or strongly agreed that they had increased knowledge of risk factors for developing type 2 diabetes and CVD, increased skills in healthy diet and doing physical activity, and made healthy behavioural changes relating to eating habits and physical activity. Moreover, over 95% of the *Life!* participants rated the *Life!* program as very good or excellent.

Life! program activities and delivery

The central *Life!* team, based at Diabetes Victoria, undertakes operational activities related to:

- Providing leadership and contribution to the collective effort for prevention
- Raising awareness of the *Life!* program
- Identifying Victorians at high risk of developing type 2 diabetes and/or CVD through risk assessment and providing appropriate follow up and referral

- Developing and implementing appropriate strategies to ensure *Life!* is reaching and accessible to those at highest risk.

In 2018-2019, efforts were focused on delivering a more effective intervention with additional contact points and stronger participant engagement through strategies including a 12-month session and online platform.

External workforce

Diabetes Victoria coordinates the delivery of the *Life!* program by entering into service agreements with *Life!* provider organisations and telephone health coaches. The program is delivered by qualified health professionals in the roles of facilitators or health coaches.

As at June 30 2019, there were 167 *Life!* facilitators employed by 97 accredited provider organisations, and nine accredited THC providers. Of the *Life!* provider organisations, 57.7% (n=56) were allied health private practices, 19.6% (n=19) were community health centres and 10.3% (n=10) were general practice.

"A particularly memorable moment in the Life! program was the first group I ever ran. They were very supportive of one another and really had each other's back. All these participants completed the program and finished it with some form of success."

– Adam (facilitator)

Program reach on priority populations

In 2018-2019, the *Life!* program reached participants from 78 of 79 Victorian Local Government Areas (LGAs) and four acceptable non-Victorian LGAs. The *Life!* program also reached priority populations from:

- Regional/Rural LGAs (n=1920; 31.8%)
- Hotspot[12] LGAs (n=938; 15.5%)
- Disadvantaged LGAs (n=1694; 28.1%)
- Low socio-economic status (SES) LGAs (n=2667; 44.2%)
- CALD backgrounds (born outside Australia) (n=1963; 32.5%)
- Aboriginal background (n=46; 0.8%).

The referral channels of the *Life!* participants from group course, THC and CALD included *Life!* facilitators/health coaches (n=2888; 48.0%), general practitioners (GPs)/ health professionals (n=1815; 30.0%) and self-referrals (n=1330; 22.0%).

Conclusions

In 2018-2019, the *Life!* program continues to achieve positive participant outcomes in terms of weight and waist circumference, diet and physical activity behaviours, sedentary behaviour, and high blood pressure measures. Furthermore, additional data analyses regarding participants' knowledge of risk factors for developing type 2 diabetes and CVD, perceptions of increased skills in healthy diet and doing physical activity and making healthy diet and physical activity behavioural change, and satisfaction rating of the *Life!* program all show positive results.

These multiple positive participant outcomes may contribute to reducing the effects of multiple risk factors and decreasing the incidence of type 2 diabetes and CVD in the Victorian population in the long term.

Recommendations

Based on the evaluation of the *Life!* program as well as program delivery and activities, key recommendations are proposed, including:

- Execute strategies to improve participant retention, program reach to priority populations, and some outcomes in CALD participants
- Continue to improve data quality
- Review participant feedback questionnaires.

For more information about the *Life!* program evaluation overview please contact Emily You (Evaluation Coordinator) on eyou@diabetesvic.org.au

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12 Consistent with the previous evaluation, there were seven hotspot LGAs in 2018-2019, including Greater Dandenong, Hume, Latrobe, Melton, Moreland, Whittlesea and Wodonga. The *Life!* team is reviewing the new evidence and will update the hotspot LGAs in 2019-2020.

Life!

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