My health for life

AN INNOVATIVE, EVIDENCE-BASED PREVENTATIVE HEALTH PROGRAM FOR TACKLING CHRONIC DISEASE IN QUEENSLAND

PROGRAM DESIGN AND DELIVERY OVERVIEW

myhealthforlife.com.au

Another initiative of

Queensland Government
Healthier. Happier.

OUR HEALTH ALLIANCE

diabetes queensland

Stroke Foundation

Heart Foundation

QAIHC
Queensland Aboriginal and Islander Health Council

Ethnic Communities Council of Queensland

phn QUEENSLAND PHNs
An Australian Government Initiati

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Acknowledgements: The principal authors of this report are Lyn Hamill, Kristen Clark (Diabetes Queensland), with contributions from Dr Joy Parkinson, Nicole McDonald, and Stephanie Zietek (Griffith University). *My health for life* is funded by the Queensland Government.

EXECUTIVE SUMMARY

Introduction

The Queensland Government initiated the *My health for life* (MH4L) type 2 diabetes and cardiovascular disease prevention program in 2016. By 2020, it is expected that a minimum of 10,000 Queenslanders will complete MH4L. Delivered by "Healthier Queensland Alliance" (a non-government organisation partnership), MH4L is underpinned by the Health Action Process Approach (HAPA) (Schwarzer et al., 2008) and designed around five key behaviours to enhance participants' health and reduce their risk of chronic disease: healthy eating; achieving and maintaining healthy weight; physical activity; consuming safe levels of alcohol; and quitting or reducing smoking.

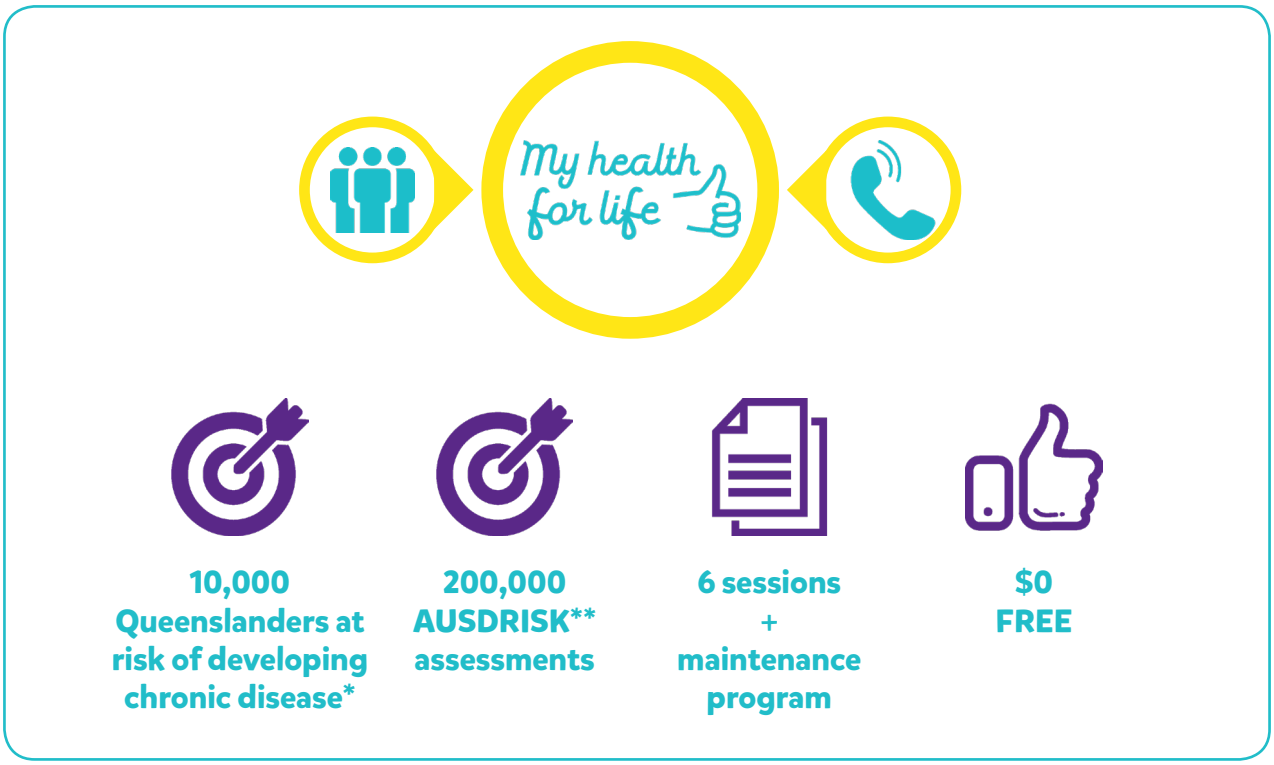
Methods

Developed using evidence-based co-design and piloted prior to implementation, MH4L is a six-session program, followed up by a six-month online maintenance program. MH4L is tailored for different audiences: general population (telephone or face-to-face group modalities), culturally and linguistically diverse populations (in five languages and as a simplified English version), Aboriginal and Torres Strait Islander people, and workplace settings.

MH4L targets adults at high-risk of developing type 2 diabetes and/or cardiovascular disease, identified through standardised risk assessment tools and specific independent risk factors:

- AUSDRISK score of 12 or greater, or Absolute CVD Risk score of 15% or greater;
- Experiencing or diagnosed with; high blood pressure, high cholesterol, familial hypercholesterolaemia, pre-diabetes or previously diagnosed gestational diabetes mellitus.

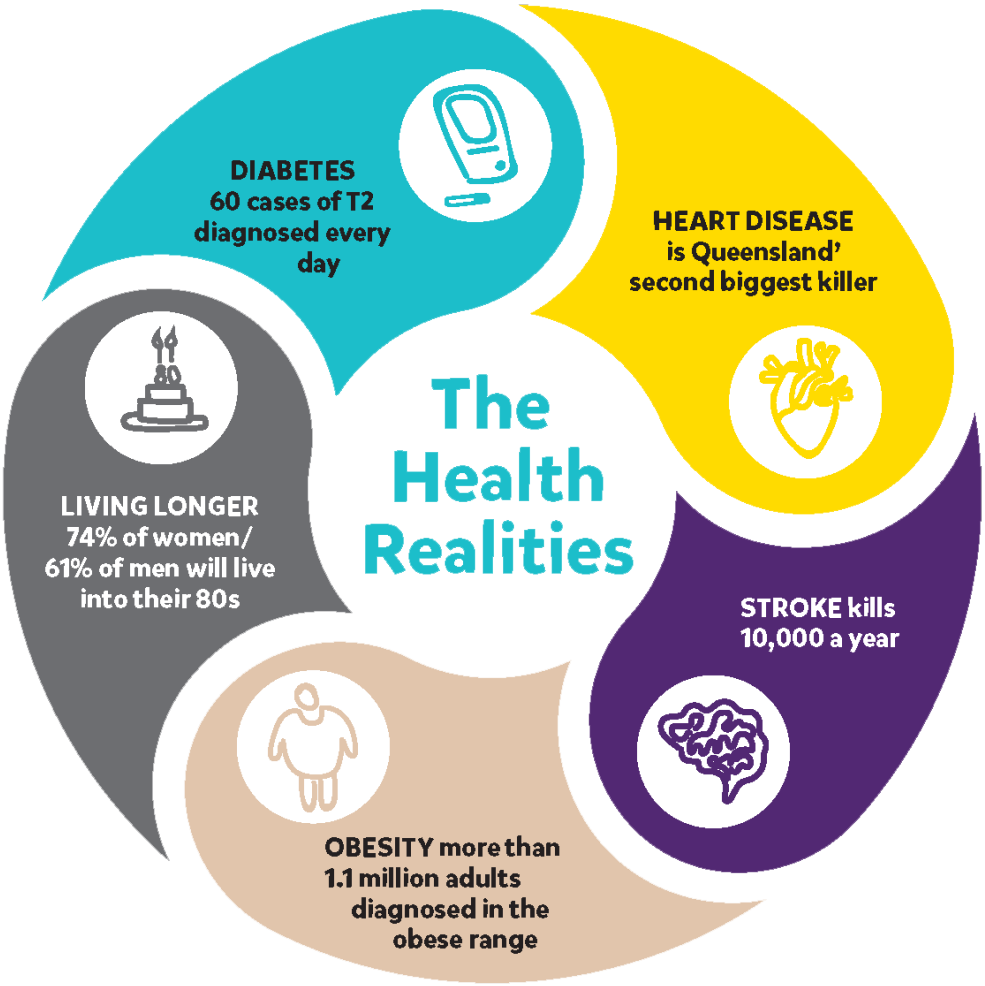
Program evaluation employs a non-randomised design, time–series analysis, and case studies to assess MH4L program modalities and adapted unique features in addition to community and environmental analysis. Implementation frameworks include 'Conceptual Model of Implementation Research' (Proctor et al., 2009) and 'RE-AIM framework' (Glasgow et al., 1999).



PART ONE: The problems of Chronic Disease in Queensland

Chronic disease is a serious issue in Queensland, with 12,617 hospitalisations a year in the period from 2009-2011, diabetes being the principal diagnosis. For every one of these, there were another four to five where diabetes was associated with the diagnosis but not the principal cause, resulting in 60,000 hospitalisations per year. (Source: Queensland Labour Party Health for Life election commitment policy)

As at 31st December 2018, there were 248,457 persons diagnosed with diabetes and registered on the National Diabetes Services Scheme. Of these, 215,954 (87%) were diagnosed with Type 2 diabetes. (Source: NDSS State Statistical Snapshot as at 31 December 2018).



PART TWO: *My health for life* program development and delivery

BACKGROUND

In October 2015, Queensland Health sought providers for the Health for Life! Diabetes and Chronic Disease Prevention Program. The objectives of the Health for Life! program were identified as:

1. To effectively identify people at high risk of developing chronic disease, and provide them with appropriate lifestyle modification interventions;
2. To increase health literacy levels and the capacity of program participants to adopt and maintain positive lifestyle changes to manage their risk factors; and
3. To improve community awareness, knowledge and attitudes about chronic disease risk factors and making positive lifestyle choices.

The program was intended to build on the Victorian Life! program, by incorporating a number of enhancements:

- Exploring new, innovative service delivery modalities that improve access to and delivery of lifestyle modification interventions, including web-based and other information and communication technology components;
- Having a priority focus on people at high risk of developing a chronic disease;
- Reviewing the intensity of program delivery to improve completion rates and ensure positive outcomes for participants;
- Developing appropriate strategies to recruit and retain Indigenous clients within the program;
- Improving referral pathways and building the capacity of the primary health care sector to incorporate risk assessment into routine service delivery;
- Developing strong partnerships, collaboration and integrated service delivery approaches; and
- Closing the feedback loop for referring service providers (e.g. general practitioners, allied health professionals).

The program was to be a statewide program provided free of charge to eligible Queenslanders. A minimum of 10,000 Queenslanders were expected to complete either the telephone coaching or group based programs. The program was to target Queensland adults, specifically those assessed as being at high risk of developing Type 2 diabetes, cardiovascular disease, obesity and specific cancers with links to obesity.

DESIGNING THE PROGRAM

THE HEALTHIER QUEENSLAND ALLIANCE

The Healthier Queensland Alliance was contracted by Queensland Health through a tender process to deliver the *My health for life program*.

The Alliance consists of:

- Diabetes Queensland,
- Stroke Foundation,
- National Heart Foundation,
- Ethnic Communities Council of Queensland, Queensland Aboriginal and Islander Health Council,
- the seven Queensland Primary Health Networks.

EACH OF THE ENTITIES BROUGHT SPECIFIC SKILLS

Diabetes Queensland (DQ) has taken the lead contractor role for the program as well as being responsible for the delivery of the Community Engagement, Social Marketing, Intervention and ICT streams of work. The program extends on prior community based risk assessment activities focused on preventing diabetes.

Stroke Foundation (SF) had been delivering the community risk assessment program, Know Your Numbers for eight years prior so brought significant experience in managing the risk assessment process. Stroke Foundation is the lead agency for the risk assessment stream of work;

National Heart Foundation (HF) had a keen interest to see an increased usage by primary care providers of the absolute cardiovascular risk tool, as part of the risk assessment aspect of the program. National Heart Foundation works within the risk assessment stream coordinating engagement, awareness and health professional training activities in conjunction with the Primary Health Networks;

Ethnic Communities Council of Queensland (ECCQ) had experience in providing culturally suitable health programs to a number of communities and was keen to expand its activities into the prevention space. ECCQ has delivered risk assessment and the program in one of the four different language versions (Arabic, Cantonese, Mandarin, Vietnamese) and to Pacific Islander participants (using a culturally tailored Simplified English version).

Queensland Aboriginal and Islander Health Council (QAIHC) was representative of a large number of Aboriginal Medical Services throughout Queensland and was able to provide guidance in how to ensure that the program was suitable for the Aboriginal and Islander communities. QAIHC supports the program's engagement with various Aboriginal and Islander organisations throughout Queensland as well as supports the training of Aboriginal and Islander facilitators using the modified version of the program;

The seven Queensland Primary Health Networks (PHN) were interested to work within the project to increase opportunities for primary care to deliver or refer to a funded chronic disease prevention program. Each PHN has a different model of allocating the MH4L resources based on the best use of resources.

The arrangements between each of the entities were structured through subcontracts

with annual budget and deliverables being negotiated as part of the annual planning process. Dispute mechanisms exist in the event of any issue but these have to date not been required.

The program design and development commenced in May 2016 with a three month planning phase, followed by project delivery commencing in August 2016 and continuing through to April 2020. The following sections present the program design, development and initial delivery phases.

COLLABORATIVE DESIGN PROCESS

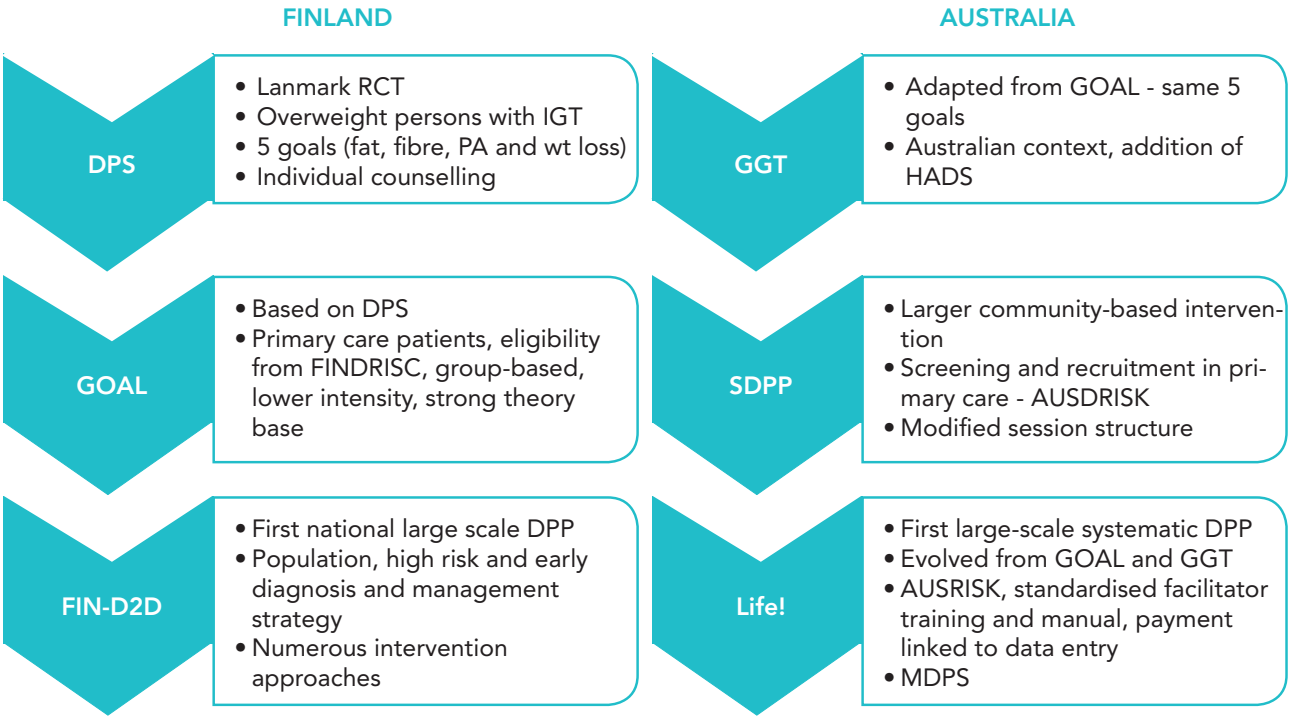
An innovative, collaborative design process was used in program development. The collaborative design approach is evidence based and uses human-centred design in collaboration with experts. This approach stands the traditional policy process on its head. Collaborative design understands what people actually want and need, then tests solutions that may be already out there or that seem promising according to clear metrics of impact. This process reduces unintended consequences and implementation of ideas that seem great in theory but fail in practice. The collaborative design process for *My health for life* included five phases, phase 1 was a literature review, formative research was conducted in phase 2, phase 3 involved an intervention reference group, the fourth phase was the Caboolture Concept Proof and finally, phase 5 was program development and refinement.

PHASE 1 LITERATURE REVIEW

A literature search was undertaken to evaluate the success of type 2 diabetes and cardiovascular disease prevention programs targeting high risk individuals.

The literature search confirmed that there was the potential to prevent or delay type 2 Diabetes Mellitus by lifestyle intervention. "Several large randomised control trials from the USA, Finland, China, Japan and India demonstrated that lifestyle interventions can be successful in reducing the incidence of T2DM in high-risk populations by up to 58%, with generally good maintenance for up to 20 years."

Both Finland and Australia have continued to develop diabetes prevention efforts as shown in Figure 2.



History of diabetes prevention programs in Finland and Australia

Due to validated screening tools existing for cardiovascular disease and type 2 diabetes, the focus of the risk assessment activities is around the use of the AUSDRISK and Absolute Cardiovascular Risk tools. The lack of a validated tool for screening for cancer risk meant the removal of this requirement.

The literature review provided a summary of evidence-based guidelines and characteristics of successful interventions (see appendix 1).

was conducted in phase 2, phase 3 involved an intervention reference group, the fourth phase was the Caboolture Concept Proof and finally, phase 5 was program development and refinement.

PHASE 2 FORMATIVE RESEARCH

Formative research undertaken at project commencement indicated that there was demand for a preventative program amongst those at risk of chronic disease. A high proportion of people had a good understanding of where to go for trustworthy information on weight, diet, and exercise. People identified having a chronic disease as being a major health concern but did not consider it personally relevant, even with people identified as being at risk. Barriers to lifestyle change identified including the (perceived) cost of eating healthy, time pressures, inconsistent information about diet and exercise and lack of motivation.

The findings indicated that any chronic disease prevention program needed to have key inclusions:

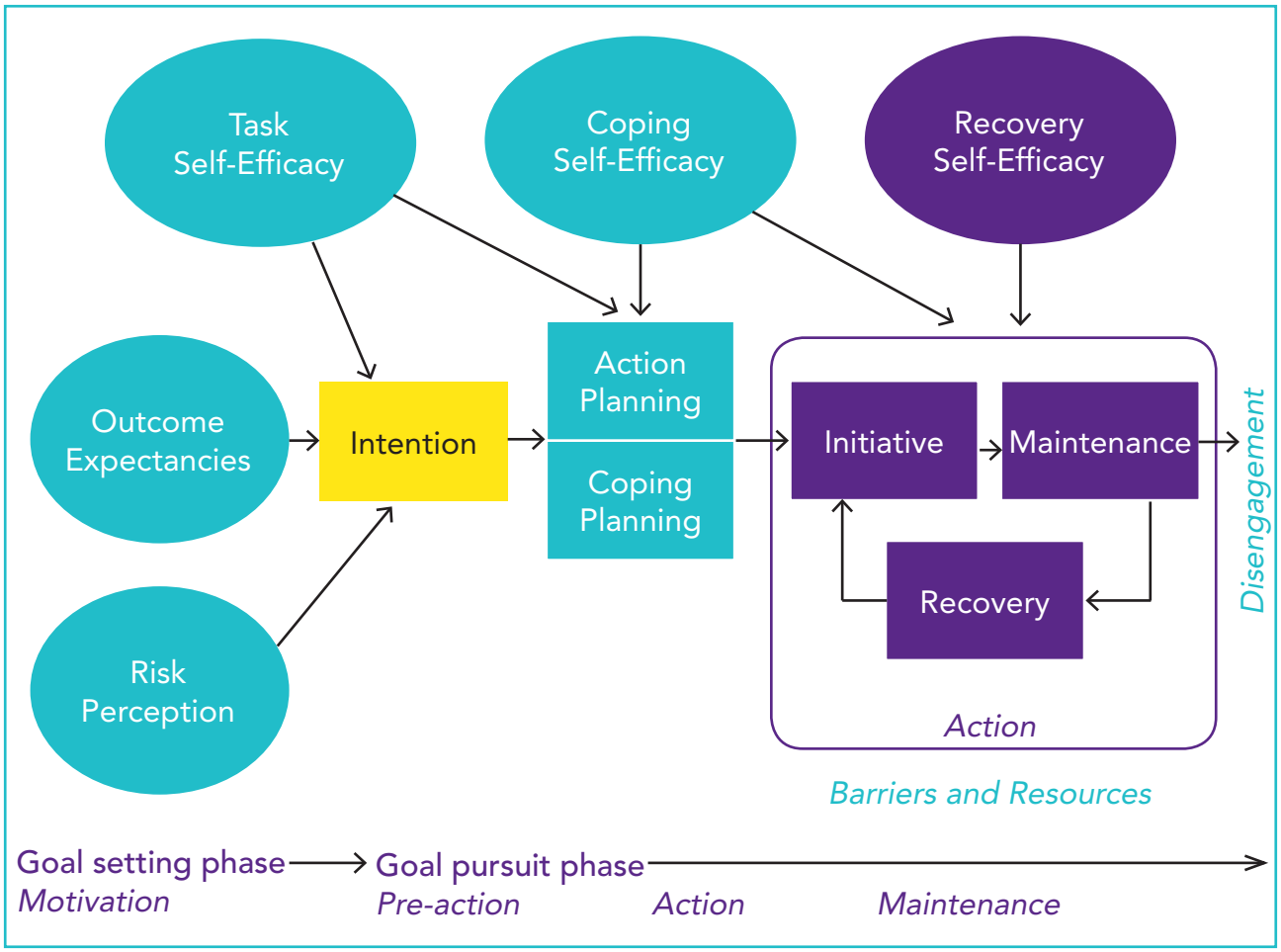
One of the outcomes of this research was to change the name to *My health for life*.

Subsequent to examining the evidence, the Healthier Queensland Alliance decided not to use the Victorian Life! program as a base, instead determined to develop its own program focussing on behaviour change using lifestyle coaching.

After review of alternate behaviour change modes, the Health Action Process Approach (HAPA) model for health behaviour change (Schwarzer, 2008) was chosen to underpin the program (Figure X). HAPA suggests participants need to:

1. Understand the process of behaviour change
2. Explore motivation
3. Importance of changing their behaviour and self-efficacy (confidence) to change their behaviour
4. Identify and engage sources of social support
5. Plan for behaviour change - initiate action and review progress
6. Relapse management
7. Maintenance.

Access to personalised program	• Needs to take into account individual needs and goals • Varied modes of contact and channels to suit personal preference • Potential to adjust length of program to suit participant needs • Involvement of health experts depend on participant needs
Personalised by face-to-face contact	• Face to face was the preferred channel of contact • Face to face contact was important to build rapport with the health expert, particularly initial session
Access to qualified experts	• Support from qualified health experts is appealing • Involvement of a community representative in the delivery of the program to support people from ethnic and cultural backgrounds
Drive long term behaviour change	• Program needs to address individual needs to facilitate long-term behaviour change



HAPA, Source: Schwarzer (2008).

A key input to the design of the program was the IMAGE Toolkit (Lindström et al., 2010). This document provided guidance on:

- The value of prevention as a collaborative effort, with effective diabetes prevention for individuals embedded into a supportive social environment.
- The need for a multidisciplinary prevention team, involving several professional disciplines including medicine, behaviour change, nutrition and physical activity.
- Identifying persons at increased risk of developing diabetes including use of risk scoring algorithms
- Identifying elements of an effective lifestyle intervention program, including:
    - Considerations of responsibility for changing behaviour, empowerment, choice and support.
    - Time frames for implementing a lifestyle intervention program including intervention intensity
    - Aspects of communication to focus on
    - Suggested approaches on discussing physical activity, nutrition and dietary guidance, and other behaviours such as smoking, stress and depression and sleeping patterns.
- Incorporating evaluation and quality assurance

PHASE 3 INTERVENTION REFERENCE GROUP

To design the program, an Intervention Reference Group was set up to include a range of experts in prevention including representatives from the Victorian Life! program, the Sydney Diabetes Prevention Program and Diabetes Western Australia (who delivered the DESMOND program, a behavioural change program for newly diagnosed persons with Type 2 diabetes). Feedback from this working group was critical to the final design of the program as presented in Table 2:

Intervention reference group feedback summary

First session	• One-to-one delivery • Emphasis is Motivational Interviewing and collection of initial data (need to explain why captured data is important) • Understanding of how individuals have got to their current point and family systems/social network • Understanding participant's barriers and strategies to overcome. Gain insight into participant's previous attempts of change, reasons for change, and mechanisms to change • Define clear guidelines for referral pathways (GP and/or other) • Strongly emphasise connection with GP to assist with ongoing support and assistance
Initial group session	• Less content – purpose is to create group dynamics • Recap initial 1:1 session as a group – share personal risk factors, previous attempts to change, barriers and strategies to overcome, what health and success at the end of this program looks like • Understanding 'risk' and what it means for 'me'
All sessions	• Use a co-created learning vs prescribed content sessions. Build in some of the wellbeing and maintenance sessions earlier • Check with participants at start of each session their current understanding of topic (i.e. diet and exercise) and adjust as required throughout the session • More emphasis on behaviour change and strategies for problem solving • Bring in more active learning and practical components – 'do feel think'. Consider suggestions to: > Use webinars for interactive learning (i.e. shopping tour, cooking demonstration) > End each group with mindfulness or breathing • Include case studies / champions' experience. Consider how to use local advocates/champions in the session/s • Myth busting for each topic/session • Physical activity - more on incidental exercise • Nutrition – include food availability, menu's, budgeting, Label reading. Suggestion for group to bring in food and share with the group. Consider gender bias (i.e. men not cooking and therefore being able to influence meal choices in the house) • More emphasis on mental wellbeing, social support, time management - to define where and how often
Post program	• Health prompts – SMS/email. Looks to individualise these as much as possible. • A word from our champions • Peer support i.e. a group Facebook page • Information on additional support - other local programs and resources i.e. Heart Foundation Walking groups
ATSI and CALD	• Address 'collective culture' of these communities – consider as a potential barrier and as a potential solution • Yarning would be main delivery method which would require extra time • Practical component very important – consider incorporating 15min of general exercise into the sessions • Social networking – this is a key reason participants engage with programs to connect with others

PHASE 4 CABOOLTURE CO-DESIGN AND CONCEPT PROOF

Once the initial program design was completed, the approach was tested in the "real world" using a review process of co-design facilitated by Griffith University. The process undertaken was as follows:

1. Strawman content and delivery framework for the face-to-face program (Diabetes Queensland health professionals) was developed.
2. 20-30 experts from a range of fields including health prevention and promotion, behaviour change and clinical expertise to provide input into the program design by seeking their knowledge relevant to best practice chronic disease prevention and reviewing the strawman program (Workshop co-facilitated by EY and Griffith University).
3. Up to 100 persons (potential consumers of the program) from the Caboolture region were invited to participate in developing a chronic disease prevention program under a co-design approach. They covered a broad range of cultural and demographic groups (ATSI, Pacific Islander, workplace, women who have had gestational diabetes etc.). (DQ coordinated participants and logistics).

This four-month exercise tested a range of aspects of the program (see full report at: *www.myhealthforlife.com.au/laravel-filemanager/files/shares/Concept_Proof_Final_Report_MH4L_Griffith_Uni_Dec2016.pdf*)

Social Marketing and Community Engagement:

- Trialling consumer language and word association.
- Identifying engagement processes to secure participants for risk assessments.
- Testing messaging to engage with health care providers.
- Testing use of electronic direct mail to targeted groups.

Program delivery:

- Identifying what local healthcare providers expected from such a program including remuneration, incentives, collateral and support.
- Testing the process of enrolment via the 13RISK referral centre and its success in translating referrals into program participants.
- Determining ways to schedule group sessions to optimise participation.
- Testing program messages, activities and support.

Evaluation

- Testing the draft evaluation tools and methodology for data collection.

PHASE 5 PROGRAM DEVELOPMENT AND REFINEMENT

The final MH4L program targets Queensland adults who are at high risk of developing chronic disease, as identified by screening tools for type 2 diabetes mellitus (T2DM) and cardiovascular disease (CVD), i.e. coronary heart disease and stroke. The goals of MH4L program are:

1. To effectively identify people at high risk of developing chronic disease, and provide them with appropriate lifestyle modification interventions.
2. To increase health literacy levels and the capacity of program participants to adopt and maintain positive lifestyle changes to manage their risk factors.
3. To improve community awareness, knowledge and attitudes about chronic disease risk factors and ways to make positive lifestyle choices.
4. To demonstrate the value of multi-agency collaboration through the delivery of a successful and sustainable preventative health program.

The MH4L program targets five key behaviours to enhance participants' health and reduce their risk of chronic disease: healthy eating; achieving and maintaining healthy weight; physical activity; consuming safe levels of alcohol; and quitting or reducing smoking.

Eligibility for the program

- Adults already diagnosed with Type 2 diabetes, cardiovascular disease or renal disease are not eligible.

The MH4L Clinical Reference Group requirements further refined the eligibility criteria as follows:

- High blood cholesterol identified by the question "Are you on cholesterol lowering medication?"
- High Blood Pressure is determined by two separate blood pressure readings above 140/90 by a GP or by a positive response to the question " Are you on blood pressure lowering medication?"
- Eligibility with GP Consent: in order to minimise risk to the program a number of categories should have GP consent prior to commencing the program or, if revealed after program commencement, prior to recommencing from that point with a deadline of Session 3.

Eligible with GP Consent category includes:

- Being Pregnant
- High blood pressure either ≥ 160 systolic or ≥ 100 diastolic
- A diagnosed mental health issue
- Current acute illness (i.e. cancer)

Ineligible: Renal Disease defined as Chronic Kidney Disease (CKD).

Program pipeline

Initially, the recruitment pipeline consisted of three contributors: website, pharmacy, and community events. However, this was reviewed in 2018 and the pipeline was adjusted to improve the flow of potential participants into the program as shown in Figure X. The pipeline now includes website, 13RISK call line, SiSU, program Providers, ECCQ health check events, workplace, major health check events, community events and primary care.

Program Pipeline

Refined program

As a result of the first four phases of program design and development, the program was refined and resources developed for a group based program (GBP) and a telephone health coach program (THC). MH4L is underpinned by HAPA (Schwarzer, 2015) which is incorporated into each of the six sessions:

Session 1: Motivational Interviewing (1:1 with facilitator)

Session 2: Introducing behaviour change

Session 3: Understanding motivation

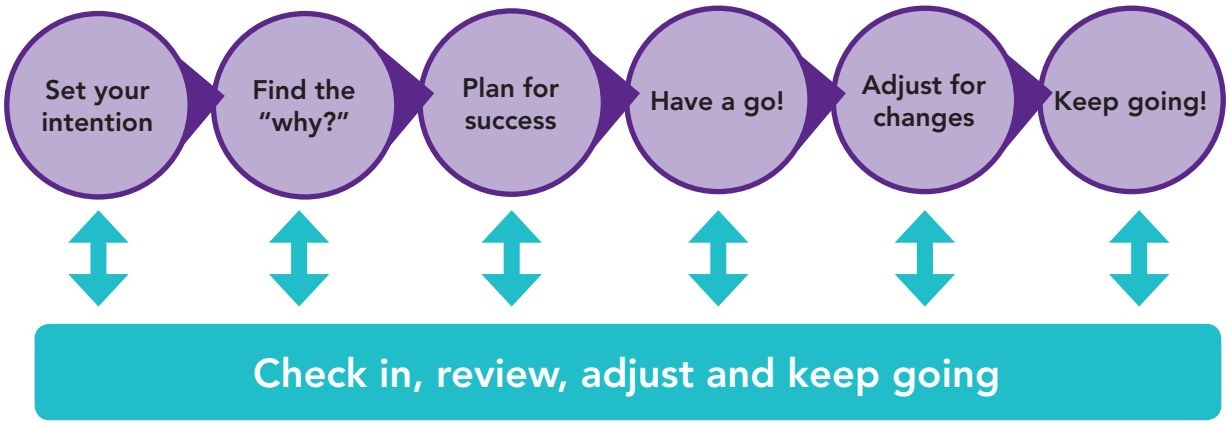
Session 4: Action planning

Session 5: Relapse prevention

Session 6: Maintenance

This process of behaviour change (Figure X) supports additional knowledge and skill development in each of the main risk factors:

- Moving more (physical activity)
- Eating well (diet and nutrition)
- Wellbeing (mental wellbeing and managing stress)
- Sleeping better (sleep hygiene)



Process of behaviour change

Program resources

Each participant receives a participant manual and workbook.

The material created for use in these tools considers participant literacy level.

Facilitators have access to online MH4L system, support tools, facilitator guide, facilitator training and the intervention team.

Where participants provide their general practitioner details, a letter is provided at session 2, (at the time of setting a SMART goal), at session 6 or otherwise at withdrawal.

Group based program

The Group based program (GBP), for small groups of participants, uses a Motivational Interviewing approach to behaviour change. GBP materials include:

- Content overview/session overview/session timing schedule
- Between session activities and touchpoints (e.g., text message, online, email, personalised letters) and social media networks that support their lifestyle behaviour change throughout the program.
- Materials provided to participants
- Facilitator resources
- Facilitator training modules.

GBP participants receive:

- An introductory session (individual)(Session 1)
- Four GBP sessions at fortnightly intervals (group sessions 2-5)
- A final GBP session following a 12-week interval (group session 6).

Telephone Health Coaching

Access to learnings and existing material from the Positive Care and Positive Impact programs, previously delivered by the Brisbane South Primary Health Network, guided the design of the telephone health coaching model, coach recruitment and training and program content.

The THC model uses on the same content as the GBP however, delivery is over six one-hour sessions on a one-to-one basis.

A THC participant receives six coaching calls over the initial six-month period, including:

- An introductory coaching call (coaching call one)
- Four coaching calls at fortnightly intervals (coaching call two to five)
- A final coaching call following a 12-week interval (coaching call six).

Between scheduled coaching calls during the initial six-month period, program contact is

maintained via a range of pre-determined touch points (e.g. text message, online, email, personalised letters) and social media networks that support their lifestyle behaviour change throughout the program.

MY HEALTH FOR LIFE EVALUATION

Program evaluation is undertaken by an independent evaluator, Griffith University. Program evaluation employs a non-randomised design, time–series analysis, and case studies to assess MH4L program modalities and adapted unique features in addition to community and environmental analysis. Implementation frameworks include 'Conceptual Model of Implementation Research' (Proctor et al., 2009) and 'RE-AIM framework' (Glasgow et al., 1999).

There are multiple aspects of evaluation occurring during the program. Data for evaluation is collected during the program's delivery:

The *My health for life* evaluation aims to:

- Assess the participant, service and system impact and outcomes of *My health for life* .
- Provide ongoing insight and feedback on key success indicators and key areas for improvement across the duration of the *My health for life* program.
- Provide evidence on chronic disease prevention programs to inform policy and practice in Queensland.
- Contribute to the evidence base on implementation of large-scale chronic disease prevention programs.

To achieve the aims of the *My health for life* evaluation, the evaluation program is based around the following key objectives:

- Determine the effectiveness of the program to change behaviour and reduce risk level and risk factors.
- Determine if the program achieved its objectives.
- Define the optimal intervention mix to achieve program objectives.
- Determine the impact the program had on the health system.
- Evaluate how the program/program elements compare with similar programs delivered in Australia and internationally.

PART THREE: Program outcomes and direction

The My health for life (MH4L) program commenced operation in May 2016 and became fully operational in 2017. In its fourth year, the program is fully operational throughout Queensland.

The program has effectively been through three phases:

- Phase one (May 2016 to April 2017): design and development of all aspects of the program including a mainstream group based program and a telephone based program and initial implementation in first sites.
- Phase two (May 2017 to April 2018): development of a state-wide service. Staged rollout across fourteen of the fifteen Hospital and Health Services. Development of a provider network of close to 200 providers. Four translated programs (Arabic, two Chinese versions and Vietnamese); a simplified English version modified for a Pacific Islander audience; and a modified version for Aboriginal and Torres Strait Islander participants.
- Phase three (May 2018 to June 2019): consolidation of all processes to optimise delivery of the program, ensuring there is integration and coordination of all streams. During this period, the program experienced its first Christmas period as a fully functioning service and completed its rollout throughout Queensland.

CONCLUSION

The program in 2019 had a clear understanding of how the various aspects of the program work together to optimise the outputs and outcomes of the program.

The alliance of participating organisations work cohesively to deliver the program. Partner organisations deliver value which assists the program operations. These include marketing and communications opportunities, engagement into forums otherwise not attended and leveraging off partner organisation networks. The reputations of the various Alliance partners in their respective communities added significant value to the program even in its early days.

Additionally, other chronic disease non-government organisations expressed interest in engaging with the program to advance the aims of the program.

Data driven decision-making, resulting from the implementation of a Business Intelligence (BI) reporting tool from commencement, allows all parties to be aware of what is happening in the program and hence make informed decisions.

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APENDIX 1 SUMMARY OF LITERATURE REVIEW

Guideline	Summary
National evidence based guideline for the primary prevention of type 2 diabetes[25]	An effective community-based intervention should: • Have a strong theoretical base; • Be designed to send a few clear messages; • Use multiple strategies to communicate these messages; • Encourage family involvement; and • Be intensive and sustained over a long period of time.
A European Evidence-Based Guideline for the Prevention of Type 2 Diabetes[36]	• Lifestyle interventions are more effective if they: • Target both physical activity and diet; • Mobilise social support; • Involve the planned use of establish behaviour change techniques (e.g. motivational interviewing, relapse prevention, self-monitoring, prompting self-talk, individual tailoring, time management, specific goal setting); • Maximise the frequency or number of contacts; and • Include a strong focus on maintenance.
Take Action to Prevent Diabetes – The IMAGE Toolkit for the prevention of Type 2 Diabetes in Europe[37]	• To encourage participation, programs should: personalise risks and benefits; emphasise short-term benefits; ensure referrers are aware of program benefits; offer incentives; initiate snowball screening; and offer a choice in modality. • Behaviour change interventions should: • Intersperse or integrate education on diet and physical activity with behaviour change sessions; • Establish motivation prior to any detailed education input; and • Encourage use of a physical activity and food diary.
Type 2 diabetes: prevention in people at high risk[38]	• Lifestyle change programs should: • Be delivered to groups of 10-15 people; • Involve the target community in developing the program; • Be delivered by practitioners with relevant knowledge and training; • Adopt a person-centred, empathy-building approach; • Be delivered in a logical progression; • Meet at least eight times over a period of 9-18month; • Provide participants with at least 16 hours of contact time (individual, group or mixture of both methods of contact); • Offer more intensive support at the start of the programme and reduce frequency over time to encourage independent lifestyle management; • Allow time between sessions for participants to make gradual lifestyle changes, and allow time during sessions to share learnings with the group; • Be delivered in a range of venues at different times to ensure access; • Offer referral to specialists where necessary; • Offer follow-up sessions at regular intervals for at least two years; • Link with other prevention initiatives to assist lifestyle change; Continued over-page >

Guideline	Summary
(continued) Type 2 diabetes: prevention in people at high risk[38]	• Offer ongoing tailored advice, support & encouragement to help people: > Undertake at least 150mins of moderate physical activity/week > Gradually lose weight to reach and maintain a healthy BMI > Increase consumption of dietary fibre > Reduce the total amount of fat in their diet > Eat less saturated fat • Use established behaviour-change techniques (information provision; exploration of confidence and reasons for making changes; goal setting; action planning; coping plans and relapse prevention); • Encourage social support; and • Encourage use of self-regulation techniques.
Type 2 diabetes prevention: population and community-level interventions[116]	Interventions for communities at high-risk of T2DM should: • Be developed by commissioners and providers of local public health services in partnership with other local authority departments, health professionals and the voluntary sector, non-for profit and non-governmental organisations; • Focus on physical activity, diet and weight management; • Be cost effective; • Take into account religious, social, economic and cultural considerations; • Identify success criteria in the early stages of development to ensure programs can be properly evaluated; • Identify skills gaps and train/recruit staff to fill gaps; • Identify and address barriers to participation; • Use community links and resources; • Train lay and peer workers and encourage them to identify 'community champions' and get other community members involved; • Ensure lay and peer workers are part of a wider team led by health professionals, and involve them in the design and delivery of culturally appropriate messages; and • Be culturally appropriate.
European Guidelines on cardiovascular disease prevention in clinical practice (version 2012)[40]	• CVD prevention interventions should: • Be multimodal and integrate education on healthy lifestyle and medical resources, exercise training, stress management and counselling on psychosocial risk factors; • Use established cognitive-behavioural strategies (e.g. motivational interviewing) to facilitate lifestyle change; • Use specialised healthcare professions whenever necessary/ feasible; and • Focus on weight reduction, smoking cessation, nutrition and physical activity.