

Live Life Healthy Program - Fraser Coast Regional Council

EVALUATION REPORT

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
TABLE OF CONTENTS.....	ii
LIST OF TABLES	vi
LIST OF FIGURES	vii
EXECUTIVE SUMMARY	viii
INTRODUCTION	1
Aim of the project	2
Project background	2
THEORETICAL CONTEXT	5
Models of behaviour change	5
Physical activity	6
Demographic factors influencing physical activity choices.....	7
Factors influencing Nutrition & Physical Activity for Low-Income Families	8
Poor nutrition and sedentary lifestyle	9
Physical activity and health of Indigenous Australians	12
Healthy lifestyle interventions for the low-income target group	12
EVALUATION METHODOLOGY.....	15
What does this mean for the Healthy Communities Initiative?.....	15
What's involved in Evaluation?	15
Intervention	17
Participants of the program	20
Data collection	21
Data Analysis.....	23
Ethics approval.....	23
FINDINGS	24
Profile of the participants.....	24
Main sources of information about the Live Life Healthy Program	25
Live Life Healthy Programs.....	26
Physical activity	26
1. AustCycle.....	26
Reasons for participation in AustCycle program	26
Reason for riding.....	27
Intention to continue riding.....	27

Confidence in riding	27
2. Live Cycling.....	27
Demographic profile	27
Amount of exercise	28
Bicycle techniques	28
Changes in behaviour.....	29
Confidence in cycling	29
Health status.....	30
Level of fitness.....	31
Purpose of exercise	31
3. Community walk.....	31
Demographic profile	31
Change in behaviour	32
4. Community exercise	33
Demographic profile	33
Changes in behaviour.....	34
Activities	34
5. Aquatic exercise.....	35
Demographic profile	35
Activities	36
Changes in behaviour.....	36
Qualitative data: Feedback on physical activity programs	37
Healthy Lifestyle – Healthy Eating.....	38
6. BEAT IT – Lifestyle Program	38
Demographic profile	38
Reasons for exercise	38
Amount of exercise	39
Eating habit of participants	39
Health status.....	40
Confidence in maintaining healthy lifestyle	41
Changes in behaviour.....	42
7. EAT IT – Healthy Eating Education Program	43
Demographic information	43
Eating habit of the participants	44
Fruit and vegetables consumption.....	44
Health status.....	45

Confidence in maintaining healthy lifestyle	46
Changes in behaviour.....	46
8. Healthy Eating and Active Lifestyle (HEAL) Program.....	47
Demographic profile	47
Reasons for exercise	48
Amount of exercise	48
Healthy eating habit of the participants	48
Health status.....	49
Confidence in maintaining healthy lifestyle	50
Changes in behaviour.....	51
Qualitative data: Feedback on Healthy Lifestyle programs	52
Health Promotion Program	53
9. Jamie's Ministry of Food.....	53
Demographic Profile.....	53
Changes in knowledge	53
Intention to change.....	54
Satisfaction.....	54
Usefulness of Jamie's Ministry of Food program.....	54
10. Diabetes Awareness Seminar.....	55
Demographic profile	55
Changes in behaviour.....	56
Qualitative data: Feedbacks of the participants on health promotion programs	56
Benefit of the LLH program	58
DISCUSSION	59
Profile of the participants.....	59
Physical Activity	60
Changes in knowledge	60
Changes in behaviour.....	60
Confidence in physical activity.....	62
Concluding comments	62
Healthy Lifestyle- Healthy Eating	63
Changes in knowledge	63
Changes in behaviour.....	64
Confidence in healthy lifestyle	66
Concluding comments	66
Health Promotion	67

Changes in knowledge	67
Changes in behavior.....	68
Concluding comments	69
Limitations	69
RECOMMENDATIONS	70
SUMMARY AND CONCLUSIONS	70
REFERENCES	72
APPENDICES	77
Appendix 1: Ethics Approval.....	78
Appendix 2: Extra Tables	79
Appendix 3: Evaluation Instruments.....	92

LIST OF TABLES

Table 1. Estimated resident population by age by local government area, 30 June 2011	3
Table 2. Estimated resident population by urban centre/locality, 30 June 2010.....	4
Table 3. Percentage Quintiles for the Fraser Coast Region	4
Table 4: Program-wise-participants' profile	22
Table 5: Profiles of participants in all the healthy lifestyle programs	24
Table 6: Opinions of the participants in AustCycling program (n)	26
Table 7: Amount of exercise of the participants in live cycling program.....	28
Table 8: Skills in riding bicycle	29
Table 9: Cycling for exercise of the participants	31
Table 10: Participants feedback on physical activity program	37
Table 11: Differences in exercise of participants in the BEAT IT program.....	39
Table 12: Percentages of distribution of participants in different exercises	48
Table 13: Amount of exercise of the participants in the HEAL program	48
Table 14: Eating habit of the participants	49
Table 15: Participants' feedback on healthy lifestyle programs	52
Table 16: Comments of the participants	57
Table 17: Benefits of Live Life Healthy Program	58
Table 18: Behaviour changes of participations in the live cycling program.....	79
Table 19: Participants opinions in the community walk program (n=83)	79
Table 20: Participants opinions in follow up to community walk program (n=4).....	80
Table 21: Participants opinions on community exercise program.....	80
Table 22: Participants opinions on aquatic exercise program.....	80
Table 23: Amount of exercise in the BEAT IT program	81
Table 24: Tukey test results of amount of exercise in BEAT IT program.....	81
Table 25: Healthy eating habit of the participants in the BEAT IT program.....	82
Table 26: Health conditions of participants in the BEAT IT program.....	82
Table 27: Tukey test results of health condition of participants in the BEAT IT program.....	83
Table 28: Confidence of the participants in the BEAT IT program	83
Table 29: Behaviour changes of participants in the BEAT IT program	84
Table 30: Behaviour changes of participants in follow up to BEAT IT program.....	84
Table 31: Differences in eating habit of participants in the EAT IT program.....	85
Table 32: EAT IT assisted in increasing confidence	85
Table 33: Changes in behaviour of participants in the EAT IT program.....	86
Table 34: Tukey test results of eating habits in the HEAL program.....	86
Table 35: Health status of participants in the HEAL program.....	87
Table 36: Confidence level of participants in the HEAL program	87
Table 37: Behaviour changes of participants in the HEAL program.....	88
Table 38: Behaviour changes of participants in follow up to HEAL program	88
Table 39: Impact of Jamie's Ministry of food program on participants n=45	89
Table 40: Behaviour changes of participants in Diabetes Awareness seminar.....	90
Table 41: Health status of participants in healthy lifestyle programs	90
Table 42: Level of fitness of participants in healthy lifestyle programs.....	91
Table 43: Confidence in maintaining healthy lifestyle	91

LIST OF FIGURES

Figure 1: Main sources of information used by the participants (%).....	25
Figure 2: Demographic profile of participants in the Live Cycling program	28
Figure 3: Percentage distribution of participants in the live cycling program.....	29
Figure 4: Confidence level of participants in the cycling program.....	30
Figure 5: Health status of the participants	30
Figure 6: Level of fitness of participants in live cycling program.....	31
Figure 7: Demographic profile of participants in the community walk program	32
Figure 8: Percentage distribution of participants in the community walk	33
Figure 9: Demographic profile of participants in the community exercise program.....	33
Figure 10: Percentage distribution of participants changes in behaviour	34
Figure 11: Percentage distribution of participants in the community exercise programs.....	35
Figure 12: Demographic profile of participants in the aquatic exercise program.....	35
Figure 13: Percentage distribution of participants in various aquatic exercises	36
Figure 14: Percentage distribution of participants in the aquatic program	36
Figure 15: Demographic profile of participants in the BEAT IT program.....	38
Figure 16: Amount of exercise of participants in the BEAT IT program.....	39
Figure 17: Eating habit of the participants.....	40
Figure 18: Health condition of the participants	41
Figure 19: Confidence level of participants in the BEAT IT program	42
Figure 20: Percentage distribution of participants in the BEAT IT program.....	43
Figure 21: Percentage distribution of participants in the EAT IT program	43
Figure 22: Eating habit of participants in the EAT IT program.....	44
Figure 23: Fruit & vegetable consumption of participants in the EAT IT program	45
Figure 24: Health condition of participants in the EAT IT program	45
Figure 25: Confidence level in maintaining healthy lifestyle	46
Figure 26: Percentage distribution of participants' based on their behaviour changes.....	47
Figure 27: Percentage distribution of the participants in the HEAL program	47
Figure 28: Health condition of participants in the HEAL program	50
Figure 29: Increase in confidence of participants in the HEAL program	51
Figure 30: Percentage distribution of participants in the HEAL program	52
Figure 31: Demographic profile of participants in Jamie's Ministry of Food	53
Figure 32: Percentage distribution of participants in Jamie's Ministry of Food.....	54
Figure 33: Usefulness of Jamie's Ministry of Food program	55
Figure 34: Percentage distribution of participants in Diabetes Awareness seminar	55
Figure 35: Percentage distribution of participants in Diabetes Awareness seminar	56
Figure 36: Disable participant in LLH program	59
Figure 37: Participants in the LLH Program.....	59
Figure 38: Participants in the community walk program.....	60
Figure 39: Participants in the live cycling program.....	61
Figure 40: Participants in the aquatic exercise program	62

EXECUTIVE SUMMARY

The Live Life Healthy (LLH) program project provided a free or low cost, physical activity and healthy eating programs in the Fraser Coast Regions with a focus on adults over 18 years of age not in full time employment. The aim of the project was to reduce overweight and obesity in the community by raising awareness of the benefits of healthy lifestyle behaviours and enhancing skills to develop healthier eating habits and patterns of physical activity, particularly in community members who are at risk of developing lifestyle diseases such as cardiovascular disease and type2 diabetes.

Specific objectives of the project were to:

- a) promote and improve nutrition knowledge and healthy eating habits
- b) increase the number of community members who are physically active and participate in regular physical activity
- c) support community members to develop the skills required to maintain a healthy lifestyle

The study question for this evaluation was: How effective are the Live Life Healthy Program - Healthy Communities Initiative in meeting the aims and objectives of this initiative?

The Centre for Rural and Remote Area Health, University of Southern Queensland (USQ), is commissioned to conduct an independent evaluation of the Live Life Healthy Program, Healthy Communities Initiative.

Method

A total of 1718 people took part in the LLH program; of them, 821 participants completed the evaluation survey. Both qualitative and quantitative data were collected from 821 participants in ten different activities of the LLH program over three time periods: before, immediately after, and six months of the program during June 2012 to March 2014. Eighty-eight percent of participants in the programs were female, 48% were over 60 years of age and 47% were retirees. Eighteen percent of participants were disabled and 9% were carers.

Major findings

Physical activity programs: There were five physical activity programs organised in the community: AustCycle, live cycling, community walk, community exercise, and aquatic exercise. The aquatic exercise had the largest number of participants (401), compared to the community exercise program (113), community walk program (83), live cycling (32) and AustCycle (11). Most participants (90%) in physical activities were female and more than three-fifths (44%) of participants were over 60 years of age and retired (42%). Of the participants, 17% were disabled and 10% carers.

AustCycle: The AustCycle program improved the bike skills of participants (100%) and taught them new skills (100%). Three-fourths (75%) of participants indicated they would continue riding after the program. After the program participants indicated that they had quite a high level of confidence (mean=4.75 on a five point scale) in riding.

Live Cycling: There were significant increases in participants' confidence in cycling ($t=-5.51$, $p=.01$) and improvements in the proportion of participants exercising for fitness and recreation. The findings show that this program had increased the participants' confidence and skill level in riding (92%), awareness of healthy lifestyle (72%), intention to increase physical activity (92%), and would like to refer the program (100%) to others.

Community walk: The majority (91%) of participants after the program and 75% in the follow up stated that this program had increased their awareness of healthy lifestyle activities. Almost three-fourths (72%) of participants intended to increase the amount of physical activity, however in the follow up 50% stated that they had increased the amount of physical activity. Most participants (93%) would like to refer this program to others. The majority of participants were satisfied with the program both after (93%) and in the follow up (75%) survey.

Community exercise: The highest proportion (86%) of participants felt that the program had increased their awareness of healthy lifestyle activities. Likewise, 89% of participants intended to increase their amount of physical activity and 77% intended to sign on for other programs. Most participants (93%) noted that they would like to refer others to participate in the community exercise program.

Aquatic exercise: The majority (83%) of participants felt that participation in this program had increased their awareness of healthy lifestyle activities; of these participants, most (87%) of them intended to increase their amount of physical activity and 73% expressed their interest to sign on for other programs. Of the participants, 96% indicated they would refer the program to others and 90% were satisfied with the program.

Healthy lifestyle – healthy eating programs: Three different healthy lifestyle activities were organised in the community: BEAT IT, EAT IT, and HEAL. The BEAT IT program had the most participants ($n=52$), compared to EAT IT ($n=26$) and HEAL programs ($n=25$). Eighty percent of participants were female and three-quarters (75%) of them were 60 years of age or over, with 73% retired. Of the participants 23% had disabilities and only 3% were carers.

BEAT IT: Most participants both after and in the follow up felt that the program had increased their knowledge of healthy eating and an active lifestyle (93% after and 83% in the follow up), their skills and confidence in making healthy choices (81% after and 92% in the follow up), awareness of healthy lifestyle activities (83% after and 100% in the follow up), and awareness of risk factors associated with poor diet and low levels of physical activity (90% after and 92% in the follow up 92%).

The majority (88%) of participants intended to change their lifestyle with respect to healthy eating and 83% with respect to physical activity. In the follow up 92% of participants stated that they had changed their lifestyle with respect to physical activity, however only 59% stated that they had changed their lifestyle with respect to healthy eating. Of the participants, 93% noted that they would refer others to the program.

EAT IT: There were significant improvements in vegetable consumption ($t=-3.35$, $p=.01$) of the participants; they indicated the program had increased quite a bit of their confidence in maintaining a healthy lifestyle. Ninety-four per cent of participants felt that the program had

increased their knowledge and awareness of a healthy lifestyle and confidence and skills in making healthier lifestyle choices.

HEAL: There were significant improvements in the proportion of participants exercising for fitness (chi-square=7.00, $p=.03$) and recreation (chi-square=9.82, $p=.01$) and fewer participants eating takeaway food ($F=4.21$, $p=.02$). All participants felt that the program had increased their awareness of risk factors associated with an unhealthy lifestyle, and 93% felt that they had increased their awareness of a healthy lifestyle and their skills and confidence in maintaining this lifestyle; this dropped to 83% in the follow up.

Health promotion programs: Two different health promotion activities: Jamie's Ministry of food and Diabetes awareness seminar, were organised in the community. Jamie's Ministry of food had the most participants ($n=45$), compared to the Diabetes Awareness seminar ($n=33$). Within the health promotion programs 81% were female and almost half (44%) were over 60 years of age and retired. Of the participants 18% had disabilities and 10% were carers.

Jamie's Ministry of Food: More than three-quarters (76%) of participants indicated that the program had increased their cooking skills and 62% intended to change their lifestyle. Before the program 45% of participants rated the program as very good or excellent and after the program this had increased to 62%.

Diabetes Awareness seminar: The highest proportion (91%) of participants felt the program had increased their awareness of healthy lifestyle activities and 86% indicated that it had increased their awareness of risk factors associated with an unhealthy lifestyle. Eighty-three percent felt that the program had increased their knowledge about the benefits of healthy eating and exercise, and 77% intended to include more fruit and vegetables in their diet.

Conclusion

Based on the self-reported data the LLH program have increased participants' knowledge, confidence, skills and changes in behaviour toward healthy lifestyle and motivated them to change their lifestyle to include physical activity. The participants reported that they are:

1. feeling much healthier and have increased their amount of exercise;
2. aware of the risk factors associated with poor diet and low levels of physical activity and their confidence and skills in making healthier lifestyle choices in areas such as shopping for healthy food and drinks, budgeting and meal planning, choosing healthy food, and buying affordable food;
3. aware of the health issues and the benefits of exercise and a healthy diet;
4. encouraged to develop healthier eating habits;
5. feeling significant improvements in their health conditions and level of fitness, commenting that they felt fitter, healthier and stronger as a result of the programs;
6. aware of the dangers of diabetes.

Recommendation

As the Live Life Healthy program is effective in changing the behaviour of the participants in maintaining their healthy lifestyles this program needs to continue to endure this behaviour of the community people in the region over a period of time.

INTRODUCTION

Fraser Coast Regional Council is one of the 18 Queensland Local Government Authorities to receive funding through the Australian Government, Department of Health and Ageing National Partnership Agreement of Preventive Health, Healthy Communities Initiative.

Fraser Coast Regional Council is committed to the implementation of the Healthy Communities Initiative as outlined in the funding agreement with the Department of Health and Ageing and the Implementation Plan. The role of Council in evaluation of the Healthy Communities Initiative is to:

- Conduct local evaluations of the Healthy Communities Initiative project and reporting outcomes to the Department.
- Contribute to the national evaluation by providing routine reports using the templates and data collection tools provided in the Evaluation Guide to KPMG's national evaluation team and participating in other evaluation activities undertaken by KPMG including, but not limited to, telephone interviews and site visits.

The project provided a suite of free or low cost physical activity and healthy eating programs in the regions signature parks and community facilities with a focus on adults over 18 not in full time employment. The expected benefits to participants are included:

1. improvements to knowledge, skills and confidence to adopt healthy eating behaviours;
2. improved ability to adopt healthy physical activity behaviours; and
3. increased ability to establish healthy eating and physical activity behaviours among the family members.

Some individuals who participated in the project activities may feel satisfied by the opportunity to shape the Healthy Communities Initiative program available to the community by providing systematic feedback on what is useful and what is not useful for them. It is therefore likely that the evaluation findings will seek to improve the program and will benefit future participants if the program continues after the expiration of funding - June 2014.

The Centre for Rural and Remote Area Health, University of Southern Queensland (USQ) is commissioned to conduct an independent evaluation of the Live Life Healthy Program, Healthy Communities Initiative. While much quantitative data has been collected throughout the program on participants' involvement in various activities, a more qualitative approach is required to explore in depth what the impacts on participants have been, and to deal with the issue of attribution; how it is that the program has contributed to, any changes observed in the data on health outcomes. So both qualitative and quantitative data have been collected from the participants of the healthy program activities.

The following phases of activity are involved, some of which occurs concurrently

Phase 1: Literature review that informs the project evaluation including reference and consideration of the Live Life Healthy Program- Healthy Communities Initiative Evaluation Guide and compliance with the evaluation of the initiative from a national perspective being conducted by KPMG.

Phase 2: Deliver programs and activities. The initiative targets to deliver the programs/activities to approximately 4,000 people across the region. Finally it reached to 821 people in different programs/activities (Table 4).

Phase 3: Evaluation of the program is built into evaluation of data collected in relation to outcomes from the delivery and follow up of activities that are aimed at leading to changes in behaviour and improved health and wellbeing behaviours.

The evaluation contributes to continuous quality improvement and potentially contributes to evidence to support program recognition and findings. The information about the program that was collected seeks to improve the achievement of goals and objectives of the program as well as providing valuable information to improve the program delivery.

Aim of the project

The aims of the project are to reduce overweight and obesity in the community by raising awareness of the benefits of healthy lifestyle behaviours and by enhancing skills to develop healthier eating habits and patterns of physical activity, particularly in community members who are risk of developing lifestyle diseases such as cardiovascular disease and type2 diabetes.

Specific objectives of the project are to:

1. promote and improve nutrition knowledge and healthy eating habits
2. increase the number of community members who are physically active and participate in regular physical activity.
3. support community members to develop the skills required to maintain a healthy lifestyle.

The study question for this evaluation was:

How effective are the Live Life Healthy Program - Healthy Communities Initiative in meeting the aims and objectives of this initiative?

The programs and activities are predominately delivered by either qualified trainers that have been trained as part of this initiative or local community organisations.

Project background

Socio-Economic Indexes for Areas (SEIFA) is a summary measure of the social and economic conditions of geographic areas across Australia ¹. SEIFA comprises a number of indexes, which are generated at the time of the ABS Census of Population and Housing. In 2006, a Socio-Economic Index of Disadvantage was produced, ranking geographical regions to reflect disadvantage of social and economic conditions. The index focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage. Updated SEIFA scores based on 2011 Census data was not available from the Government Statistician at the time of producing this report.

As at 30 June 2012, the estimated resident population of the Fraser Coast region was 98,629 persons, compared with 4,560,059 persons in Queensland. The population of Fraser Coast Regional Local Government Area (LGA) increased by 1,333 persons between 30 June 2011 and 2012, which was a population growth rate of 1.4 per cent, compared with 1.9 per cent increase for Queensland.

As at 30 June 2011 in Fraser Coast Regional LGA, 18.9 percent of persons were aged 0 to 14 years, 60.1 percent were aged 15 to 64 years and 21.0 percent were aged 65 years and over.

Table 1. Estimated resident population by age by local government area, 30 June 2011

Local government area	Population by age									
	0–14		15–24		25–44		45–64		65+	
	number	%	number	%	number	%	number	%	number	%
Fraser Coast (R)	18,386	18.9	10,342	10.6	20,404	21.0	27,740	28.5	20,424	21.0
Queensland	887,487	19.8	625,429	14.0	1,264,341	28.3	1,119,056	25.0	577,785	12.9
Fraser Coast (R) LGA as % of	2.1	..	1.7	..	1.6	..	2.5	..	3.5	..

pr = preliminary rebased .. = not applicable R = Regional Note: Based on Australian Bureau of Statistics, Australian Statistical Geography Standard (ASGS), July 2011.

Data are updated annually with an approximate delay of 12 months after the reporting period. It is anticipated the next update will be in September 2013.

Source: Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia, 2011, cat. no. 3235.0

The Fraser Coast Regional Council Local Government Area (LGA) contains one or more urban centres and/or localities. The urban centre or locality in the Fraser Coast Regional Council LGA with the largest population at 30 June 2010 was the urban centre of Hervey Bay, with a population of 50,866 persons (see following table). Of the urban centres and localities within Fraser Coast Regional Council LGA, the urban centre of Maryborough had the highest population density, with 716.6 persons per square kilometre ¹.

At the time of the 2011 Census, the region had 3,417 persons who stated they were of Aboriginal or Torres Strait Islander origin, representing 3.6 per cent of the total population (compared with 3.6 per cent in Queensland).

Of these, 3,417 persons stated they were Aboriginal, 183 persons stated they were Torres Strait Islander, and 167 persons stated they were both Aboriginal and Torres Strait Islander. It is likely that this group will be a significant proportion of low income families in this region.

The region had 13,340 persons who stated they were born overseas (14.0 per cent of the total population). Of these, 2,460 persons born overseas stated that they spoke a language other than English at home (18.4 per cent of the overseas-born population). There were a total of 26,867 families in the region. The family type with the largest number of families was couple families with no children (12,991 families). There were 4,655 one-parent families, accounting for 17.3 per cent of all families in the region.

Table 2. Estimated resident population by urban centre/locality, 30 June 2010

Urban centre/locality	Estimated resident Population number	Area km2	Population Density persons/km2
Hervey Bay	50,866	71.5	711.4
Maryborough	23,147	32.3	716.6
Booral	1,754	28.0	62.6
Toogoom (L)	1,486	9.6	154.8
River Heads (L)	1,399	24.0	58.3
Howard	1,253	8.6	145.7
Glenwood (L)	1,248	51.9	24.0
Burrum Heads	1,176	3.2	367.5
Sunshine Acres (L)	917	14.4	463.7
Oakhurst (L)	795	12.4	64.1
Pacific Haven (L)	722	25.4	428.4
Aldershot (L)	639	8.5	75.2
Tiaro (L)	524	3.4	154.1
Torbanlea (L)	419	3.2	130.9
Boonooroo-Tuan (L)	413	16.6	24.9
Poona (L)	399	4.0	99.8
Maaroom (L)	278	53.8	5.2
Fraser Coast (R)	102,080	7,116.7	14.3
Queensland	4,513,850	1,734,173.9	2.6

The following Table shows the percentage of the population in each quintile (one-fifth or 20 percent of the population) according to the Socio-Economic Index of Disadvantage, for the Fraser Coast Region:

Table 3. Percentage Quintiles for the Fraser Coast Region

Local Government Area	Quintile1(most disadvantaged)	Quintile 2	Quintile 3	Quintile 4	Quintile5(least disadvantaged)
	- Percentage of population -				
Fraser Coast (R)	48.9	33.1	8.2	7.1	2.7
Queensland	20.0	20.0	20.0	20.0	20.0

In 2011, the region had 28,920 persons aged 15 years and over whose highest level of schooling was year 11 or 12 (or equivalent), representing 39.0 percent of all persons aged 15 years and over, compared with 55.3 percent for Queensland. There were 37,881 persons aged 15 years and over with a qualification, or 49.1 per cent of the population in this age group, compared with 54.2 per cent in Queensland. The region had 7,841 persons in need of assistance with a core activity, representing 8.2 per cent of the total population, compared to 4.4 per cent for Queensland and there were 35,528 persons aged 15 years and over who stated that their total personal weekly income was less than \$400, representing 46.1 per cent of all persons aged 15 years and over, and considerably higher than the 34.6 per cent for Queensland.

The number of unemployed persons aged 15 years and over (based on a smoothed series) in the region in December quarter 2012 was 3,980. This represented an unemployment rate of 9.0 percent. In comparison, Queensland had a smoothed unemployment rate of 5.8 percent. While the Socio-Economic Index of Disadvantage is not yet available based on the 2011 Census data, the above factors would indicate that the Fraser Coast is still a region of considerable social disadvantage.

In terms of evaluation, the demographics does present some challenges, as it means that the target group for various activities may vary, and the actual content delivered and duration may also vary according to the broader service setting in which each activity occurs. These demographics confirm program assumptions about the general level of disadvantage for the Fraser Coast region, particularly in relation to income and lower levels of education. In terms of evaluation, they provide some baseline information against which we can assess the representativeness of our program participant group in relation to regional disadvantage.

THEORETICAL CONTEXT

The concept of health is complex and contested, and health promotion is a multifaceted field. This has implications for both the implementation and evaluation of health promotion programs. A number of key concepts and practices are outlined to contextualise the evaluation of Live Life Healthy (LLH) program.

There is a dearth of literature by Australian authors in relation to the socioeconomic income and literacy levels on nutritional choices and purchase among low income earners in Australia. As a result much of the literature reviewed here is from an international perspective however it relates directly to the demographics of the region currently under study. The literature search was conducted using keywords including; *nutrition, healthy lifestyle, food choices, food shopping; physical activity*, in various combinations. Search engines used included CINAHL, EBSCOHOST MEGAFILE PRIMER.

Broader web searches were also undertaken with key words including *Community Based Social Marketing, evaluation, nutrition and healthy choices programs; interventions, obesity, public health, physical activity*. Relevant web pages such as Queensland Health, Vic Health, www.cbsm.com and “Tools for Change” were also sourced. Searches also included consideration of current regional and local government planning documents for reference to healthy lifestyle objectives. Main concepts emerging from the literature review were factors affecting food and lifestyle choices of low income families, perceptions in relation to food choices and healthy lifestyles, motivation to change; healthy choices, link between policy and healthy lifestyles.

Models of behaviour change

Health promotion and education utilise a wide range of models of behaviour change drawn from social and behavioural psychology. These form the basis and assumptions upon which health promotion programs are designed and expected to create effects². One of the most common theories used to explain individual behaviour is the ‘health belief model’, which hypothesises that health-related actions rely upon an individuals’ perception of a particular disease or condition as serious, of themselves as susceptible to the condition, and a perceived net benefit of carrying out the preventative behaviour³.

The 'Trans-theoretical Model' ⁴ builds on the health belief model, arguing that changes in behaviour occur over time, in stages, are non-linear (individuals move back and forth through the stages), and that change is affected by an individual's 'self-efficacy' ⁵; or confidence in their ability to make the change, and continue to do it through challenging circumstances. Other factors influencing behaviour change include social norms, environmental factors, perceived relative benefit of making the change, capacity including knowledge and skills, whether the behaviour is consistent with the individual's self-image, and whether the individual has positive emotional reactions when conducting the behaviour ².

Behaviour change theories apply not only to individuals, but also to social and peer groups. For example, Azjen and Fishbein's theory of reasoned action and planned behaviour ⁶ considers the role of peers in the behaviour change process, arguing that behaviour change occurs through sharing of values amongst peers as well as sharing ideas for how best to create change; in this case in farm family health.

These concepts are important for evaluating the impacts of the Live Life Healthy (LLH) program upon participants' health related behaviours. The evaluation has investigated whether LLH has influenced individuals' knowledge of health conditions or consequences of poor lifestyle behaviours, their perceptions about the relevance of these conditions to themselves, and their perceptions of the barriers and benefits to different behaviours associated with preventing health problems. This has included questioning about whether the participants feel confident in their ability to manage their own health successfully, as well as what the results of action have been for participants. The LLH participants were asked to describe any changes they made or intended to make to their lifestyle and behaviours following the activities, to explore whether these changes were sustained, and what factors assisted or inhibited their ability to incorporate the changes into their daily life on an ongoing basis.

Physical activity

Most studies about physical activity use self-reporting where perceptions of physical activity can affect results⁷. Many studies present cross sectional data with comparison to national standards and data may not include all domains. For example the data collection tool for Australia does not measure work related activity⁸. A further limitation in comparing data is simply that of definition which may vary not only across countries but also within country. For example in Australia remoteness and rurality differ according to the classification used and even within classification, the category of remoteness is not specific enough to differentiate between property and town residents. Simply stated prevalence surveys have different methodologies and different rigour and comparison should be made with caution⁹.

The consensus from the literature is that physical activity has declined in the recent past, however as will be seen from papers cited below this may be argued. Nevertheless the environment in which we live has certainly changed and factors that may contribute to a change in physical activity include:

- Growth of labour-saving devices and decline in incidental exercise
- Less physically active occupations because of automation
- Increased use of cars, decreasing active travel and use of public transport

- Concerns about road safety, reducing cycling and walking
- Attractiveness of television, videos and computer games;
- Decrease in physical activity education and opportunities in schools, etc.

A 2008 discussion paper produced by the National Preventative Health Taskforce lists as its recommendations to tackle obesity:

*“Embed physical activity and healthy eating in everyday life through school, community and workplace programs” and “Reshape urban environments towards healthy options through consistent town planning and building design that encourage greater levels of physical activity and through appropriate infrastructure investments (for example, for walking, cycling, food supply, sport and recreation)”*¹⁰.

Recommendations as to what physical activity are similar across countries (e.g. UK, New Zealand, Australia and USA). The general health benefits for adults are based on 30 minutes of moderate intensity physical activity on five or more days per week¹¹⁻¹⁴.

The UK Government set a target for 70% of England’s population to meet this guideline by 2020¹⁵. However they admitted that the required yearly 2% increase may be unachievable¹⁴ especially as the most successful countries of Finland, Canada and New Zealand only achieved around a 1% increase.

Further, the recommendations differ for children, adolescents, adults and older adults. Within these age groups modifications also exist. For example in Australia a two-step process is recommended for adults whereby to achieve *greater health and fitness benefits* an additional vigorous activity for a minimum of around 30 minutes, three to four days a week is recommended¹⁶.

The *AusDiab* Study showed that sedentary behaviour such as television viewing time even among those who meet physical activity guidelines is positively associated with metabolic risk factors^{17,18}. Authors conclude that guidelines are required not only for physical activity but also for inactivity. Currently these only exist for children who, in addition to at least 60 minutes of moderate to vigorous intensity physical activity per day, should not spend more than two hours using electronic media for entertainment during daylight hours¹⁹.

Demographic factors influencing physical activity choices

Physical activity is associated with demographic factors including age, sex, socioeconomic status, education, ethnicity and geographic location. This section illustrates these associations between demographic factors and physical activity using Australian studies when possible.

Data published in April 2009 report on a 32 country study on the effects of age and sex on physical activity levels among 11-15 year olds and the relationship between meeting physical activity guidelines and socioeconomic status (SES) and sedentary behavior²⁰. Older children were less active than younger children and girls less active than boys. SES was significantly associated with the amount of reported physical activity overall.

Non Indigenous Australians

Demographic associations are well illustrated in Australia by from the work of Stratton at the ABS. Short odds ratios were calculated for Australian children's participation in sport outside of school from data collected in the Survey of Children's Participation in Selected Culture and Leisure Activities²¹. The base was an 8-11 year old child living in NSW with at least one parent employed. Unemployed parent, overseas birth of parents or child, sex (female), low SES, and residence in Queensland or ACT were all major factors associated with lower comparable physical activity. Both parents employed, participating in cultural activities, bike riding or skate boarding and residence in Western Australia were associated with higher comparable participation.

Within Australia Culturally and Linguistically Diverse (CALD) communities have been identified as low participation groups. Variability has been shown among different ethnic groups with those from North-West Europe having the highest participation rate (67.4%) and those from South and Eastern Europe (42.5%) and North Africa and the Middle East had (31.2%) the lowest²². Participation of females from North Africa and Middle East was as low as 19.1% and while some authors have stressed the importance of sex in participation of cultural groups²³⁻²⁵, others suggest that there is little evidence for this²⁶.

Australian studies have shown that language may play a role in participation. Among *no English* and *some English* participation was 17.5% and 53.2%, respectively²⁷. Females speaking a non-English European language and males speaking a non-European language participated less in organised sports²⁸, and children born overseas or born to parents whose country of birth is non-English-speaking also had low participation²⁹.

Indigenous Australians

ABS survey data reported by the Australian Institute of Health and Welfare (AIHW) show that Indigenous Australians are more likely than non-Indigenous Australians to be sedentary or to exercise at low levels³⁰⁻³². Specifically the data show that Indigenous Australians over 15 years of age were 1.6 more likely to report sedentary levels of physical activity compared to the general population. The trend for sedentary or low levels of exercise increased from 68% to 75% during 2001-2005 whilst exercising at moderate/high levels had dropped from 32% to 24%. Age and sex effects are also seen with rates of little or no physical activity increasing with age from 67% of people aged 15–24 years to 85% of those aged 55 years and over. Inactivity is higher among females than males (82% vs. 67%). Sedentary Indigenous Australians were more likely to report poor health, to smoke, to be overweight and have chronic health conditions. The data are supported by the *Exercise, Recreation and Sport Survey* (ERASS). Despite difficulties in data collection they note that a lower proportion of Indigenous persons (34.6%) participated in three or more times weekly exercise, recreation and sport in 2006, compared to non-Indigenous persons (42.9%)²⁸.

Factors influencing Nutrition & Physical Activity for Low-Income Families

The extent of chronic disease in Australia is well illustrated by a recent AIHW publication which reports that over half a million person years of full time employment are lost per year as a result of chronic disease³³. Australian data from 20 local government areas showed that

residents living in the most deprived neighbourhoods were less likely to jog or be active at recommended levels, even after controlling for individual with low socio-economic status (SES)³⁴. However swimming and cycling rates were not associated with SES. In contrast in Perth no association was found between SES and physical activity^{35,36}.

Attitudes to physical activity and even to what constitutes physical activity or is acceptable as physical activity environment are influenced by ethnicity and cultural background^{23,37}. Culture can result in physical activity being considered to be unnecessary²³. Some CALD communities may consider work to be a substitute for physical activity³⁸, while others place priority on education as opposed to recreational and leisure activities³⁹. Van Duyn noted, in reference to Native Hawaiian and Hmong groups, being active was a natural way of life and having to purposefully think about being active seemed to be a strange concept⁴⁰.

The effect of social structure on inequalities in the distribution of weight is suggested by epidemiological trends and patterns of obesity⁴¹. Poor nutrition and sedentary lifestyle contribute to the statistics of 7.4 million overweight Australian adults with over a third of those being obese⁴². Middle age (45-64) Australians have the highest combined rates of overweight and obesity compared to other age groups⁴³. Data collected from 14,000 adults throughout Australia on National Blood Pressure Screening Day in June 2007 showed that around 35% of middle aged women and 50% of middle age men were overweight (defined as having a BMI in the 25-30 range) and 30% of each sex are obese (BMI > 30)⁴⁴. It is estimated that over the next 20 years 700,000 hospital admissions and 123,000 deaths will be a direct consequence of overweight in middle aged Australians⁴³.

Poor nutrition and sedentary lifestyle

Poor nutrition and sedentary lifestyle contribute to the statistics of 7.4 million overweight Australian adults with over a third of those being obese⁴⁵. Middle age (45-64) Australians have the highest combined rates of overweight and obesity compared to other age groups⁴³. Data collected from 14,000 adults throughout Australia on National Blood Pressure Screening Day in June 2007 showed that around 35% of middle aged women and 50% of middle age men were overweight (defined as having a BMI in the 25-30 range) and 30% of each sex are obese (BMI > 30)⁴⁴. It is estimated that over the next 20 years 700,000 hospital admissions and 123,000 deaths will be a direct consequence of overweight in middle aged Australians⁴³.

Physical activity is reported to account for 6.6% of the burden of disease and is the fourth highest after tobacco, high blood pressure and obesity⁴⁵. The direct health care cost is estimated to be \$1.5 billion per year⁴⁶ which equates to 0.15% of GDP⁴⁷. In the most recent publication from the Women's Health Study⁴⁸ lower physical activity overall was associated with higher health care costs. Health costs were lower for overweight active women than for healthy-weight sedentary women. At the population level these data suggest that there would be significant cost savings if sedentary mid-age women could achieve at least 'low' levels of physical activity (60-150 minutes a week).

A review of epidemiological data 2000–2003 shows that physical activity confers a positive benefit on health and reduces risks of ill health⁴⁹. Result of that study reinforced the existing

conclusions that physical activity does reduce the risks of cardiovascular disease and diabetes and can reduce the incidence of some cancers, most notably colon and breast. Furthermore both chronic diseases that impart the greatest work place loss of time (arthritis and depression) can be positively supported by an active lifestyle^{50,51}. Improving diet and intake of food and increasing physical activity remain the healthiest and least risky ways of losing weight. It is predicted that a loss of 5kg would result in 34% fewer deaths and 10kg would result in 56% less deaths each year in Australia⁴³. Every 1% increase in the proportion of adults that are physically active would result in a yearly saving of \$8m⁵².

A healthy diet including fruit and vegetables is considered by nutritionists and health providers to be needed in order to sustain healthy lifestyle and to reduce the risk of cardiac disease and cancers⁵³. In areas of low socio economic income this level of nutritional intake is variable and impacted upon by factors such as income, education and access. This is borne out by authors such as Disbisdall & Frewer⁵³ who explored the beliefs and experiences pertaining to food and health and identified that irrespective of the healthfulness of their diet many participants in their study showed a lack of motivation to change their eating behaviours. They suggest that those providing nutritional advice or education should be fully aware of the egocentric and/ or value systems of those they are trying to reach and not assume that all will adapt (p308). These findings reflect those of Turrell et al. and others who found a link between socioeconomic indicators and food purchasing in that those from disadvantaged backgrounds were less likely to purchase foods such as those high in fibre, low in fat, salt and sugar⁵⁴⁻⁵⁷.

Mayo and Rainey compared nutritional beliefs and practices of older women from two vantage points—that of health professionals who work with this target group, and the older women themselves⁵⁸. Unhealthy diets and inactivity are risk factors for obesity but also underpin other adverse outcomes in relation to both physical health and well-being. However, there is very low awareness of these links⁵⁹. External influences contribute to the setting of social norms and, alongside peer pressure, can contribute to a vicious cycle of poor food habits. Children want to be accepted and belong to their peer group through their choice of food as much as their choice of clothes or music. In a study by Barnardo's⁶⁰, children expressed positive views of images of children who were eating burgers and negative views of images where children were eating healthy food⁶¹ (Cited from: The 'Healthy Living' Social Marketing Initiative: A review of the evidence).

Blake and Bisogni undertook an interpretive study in New York County to develop an understanding of personal and family food choice schemas among low to middle-income women⁶² and found that there are personal and family food choice schemas characterised by food meanings (beliefs and feelings about foods) and behavioural scripts (behavioural plans for regularised food and eating situations (p.282). Four personal food choice schemas emerged: dieter, health fanatic, picky eater, non-restrictive eater and inconsistent eater. Four family food choice schemas also emerged: peacekeeper, healthy provider, struggler, partnership. The study, while limited, does inform understanding of the complexity of factors at the personal and interpersonal level that influence food choice behaviours.

Similarly, Kaiser et al.⁶³ explored the perspectives of low income families in 2 rural Wisconsin (USA) counties about the factors that influence their physical activity and eating patterns. They found that individual, social and community influences on behaviour were supportive but suggested that barriers included factors such as lack of motivation and lack of knowledge. Findings of these researchers support the importance of multilevel approaches to promoting healthy lifestyles in rural, low income adults (p43). Smith et al. supported these findings suggesting that evidence based exercise programs can improve the fitness of adults in low income areas in USA⁶⁴.

Examination of data from the US National Health and Nutrition Examination Survey 1999-2002⁶⁵ found that low income adults ate less fruit, vegetables, milk, meat poultry and fish than those with a high income. Bowman suggested that lack of money and food cost, inability to shop, cook or feed on their own and eating alone as well as loss of teeth, social isolation and poor health were issues for older persons.

Across all age groups, Bowman found, that 7.9% of those in low income groups were food insecure without hunger and 6% were food insecure with hunger. The causes were identified as being; availability of food outlets with healthy foods, transport and mobility, poor health and disability, and housing costs. It was also noted that total fat and saturated fat intakes were over guideline levels in all population groups. These findings have relevance for the current study in rural areas of low socioeconomic income population. Life stage/status changes-in this case the transition to motherhood, was associated with positive change in some food choice behaviours, regardless of income levels⁶⁶. However, similar to other research findings, this study found that the income groups varied significantly in their intake of fruit and vegetables, both before and after pregnancy. Women making this transition for the first time showed the most consistent positive changes. The findings indicate that pregnancy and immediate postpartum periods provide opportunities for interventions to have significant impact on nutrition behaviours.

In South Carolina (USA), a program to help older, low income women bring their food choices into closer alignment with recommendations for healthful eating brought together a broad-based partnership of agencies to assist with formative evaluation, program design and delivery. The program concluded that nutrition interventions must be based on the ecological approach including behavioural & organisational change, with 5 levels of influence: intrapersonal, interpersonal, institutional or organisational, community factors and public policy factors⁶⁷.

Kaiser & Bauman⁶³ found that people with healthier behaviours were distinguished from those with less healthy behaviour by higher levels of intrapersonal, (knowledge, skills, attitudes, behaviours), interpersonal (social networks and support systems) and community supports such as resources and physical environment (eg: access to walking trails). The study also found that perceived safety may be an inhibiting factor for physical activity for people with low self-efficacy, but less salient for those who are confident of their ability to be active and who perceive few barriers. Personal and environmental factors such as knowledge and access to, affordability of fruit and vegetables may constitute particularly important influences on fruit and vegetable consumption in the rural, low income population (p.74).

These results support the importance of multi-level approaches to promoting healthy lifestyles.

Lawrence et al. explored influencing cultural factors in relation to health and diet choices in a study of young women and girls from ethnic minority groups in the UK⁶⁸. They showed that all ethnic groups took time, price, health and availability into consideration when making food purchases. There were some differences in cultural norms and traditions (such as requirements for Halal) which impacted on food purchases. Disturbingly, all groups were quite similar in their use of “Western” foods, which tended to be of the fast food variety. There was some indication that many of the study group did not have skills or knowledge about the preparation of western foods they are not familiar with, which may go some way towards explaining their preference for fast foods.

In their comparative study of at risk Latino women (receiving community health intervention, and receiving Community Health as well as a community-based lifestyle intervention, in terms of BMI reduction and other health risk factors), Dreiling et al.⁶⁹ identified that the value of integrated clinical and community-based programs, particularly for low-income populations, where neighbourhood characteristics can have a major impact on weight.

Physical activity and health of Indigenous Australians

The rationale for increasing the focus on physical activity among Aboriginal and Torres Strait Islander people is compelling. In 2004–05, information was collected relating to the frequency, intensity and duration of exercise undertaken by Aboriginal and Torres Strait Islander people living in non-remote areas. The proportion of Aboriginal and Torres Strait Islander people in non-remote areas who were sedentary or engaged in low-level exercise in the two weeks prior to interview was higher in 2004–05 (75%) than in 2001 (68%)⁷⁰. In 2001 around 43% of Aboriginal and Torres Strait Islander adults living in remote areas reported no leisure-time physical activity, compared to about 30% of other Australians in the same areas⁷¹.

Recreation, fitness, sports, active living, access to parks, arts and culture all contribute to social and emotional wellbeing, enhanced quality of life, fine motor skill development, overall health and weight control⁷².

Healthy lifestyle interventions for the low-income target group

a) In Queensland, evaluation of the “*Lighten Up*” program⁷³ showed that the two-month program based on the trans-theoretical model of behaviour change⁷⁴, achieved significant increases in fruit and vegetable intake by participants (0.6 and 0.4 respectively) and weekly minutes of walking significantly increased by 78% during the duration of the program. A large percentage of participants were obese or overweight at registration, and there was a significant reduction of 1.4 kg in mean weight, 3.7 cm in mean waist circumference and 0.5 units of mean BMI over the two month program. The program also resulted in improvements in self-esteem, and is considered an example of best practice healthy lifestyle behaviour change programs⁷³. Data are lacking as to sustainability and the long term effects.

b) *Community-based social marketing*(CBSM)⁷⁵ draws heavily on research in social psychology, which indicates that initiatives to promote behaviour change are often most effective when they are carried out at the community level and involve direct contact with people. The emergence of community-based social marketing can be traced to a growing understanding that programs that rely heavily or exclusively on media advertising can be

effective in creating public awareness and understanding of issues related to (sustainability), but are limited in their ability to foster behaviour change⁷⁶.

c) *Healthy Lifestyle programs for Aboriginal and Torres Strait Islander Communities*

The Evaluation of Healthy Weight (now *Living Strong*) Program⁷⁷ showed that results were generally positive, with around 50% showing weight loss, but there were some challenges maintaining involvement and hence pre and post measurements for a proportion of participants. Program barriers were also identified by facilitators:

- Lack of funding to provide catering or incentives
- Time the program was offered
- Stigma of involvement in the Healthy Weight Program
- Poor attendance and high attrition
- Transport
- Facilitator capacity
- Venue availability
- Difficulty of evaluation.

d) Young et al. developed a program that presented a blend of educational and marketing strategies targeting pre-schoolers that was implemented in Head Start classrooms⁷⁸. The 12-week intervention contained a narrow, behaviour-based "try new foods" message, multiple nutrition education activities, and repeated opportunities to taste 13 novel foods. Key strategies used and findings from the formative evaluation process are presented here in an effort to provide insight for nutrition educators interested in developing similar interventions (p.250). They suggested that the key learning from this model was that interventions need to be tailored to the target audiences. They found that using focus groups was a valuable way to understand the perceptions, values and opinions of the participants and potential target audience⁷⁹.

e) Bisogni et al.⁸⁰ studied low to middle-income residents in upstate New York to develop a conceptual model regarding the processes by which life course events and experiences influence management of food and eating, to provide insight for nutrition practice. The researchers found that *Food management skills* generally build over life stages, but various changes in *circumstance* may facilitate or even force development of new skills (such as having to cook for yourself, manage on a smaller budget), and may also limit capacity (e.g. poor cooking facilities)⁸¹. *Practices* tend to reflect childhood expectations, so some concepts remain, but again, circumstances and life changes, education, etc, may bring about changes and evolution of personal standards. *Food choice capacity* is the personal satisfaction at any point about the person's ability to meet their standards. This model uses a constructionist approach which means that self-efficacy is measured against one's own perceptions of standards, which may or may not reflect good health choices. Nevertheless, the model does provide some useful principles in understanding factors which affect capacity when designing programs to promote healthy choices.

Summary

Various studies have conceptualized that a need exists in this region for additional development and evaluation of dietary issues for low income and minority audiences. Findings also support the importance of multilevel approaches to promoting healthy lifestyles in regional and rural, low income adults. The research does highlight the wide range of factors which influence healthy lifestyle choices, and the limited studies of successful interventions do indicate the importance of direct and positive engagement with participants, and the need to carefully structure messages, activities and materials, based on the factors operating for the participants. Social marketing designed to encourage a change in belief about physical activity and healthy eating will support local initiatives to increase physical activity and healthy eating, promote a change in culture and change the perception that incidental rural work activity provides sufficient physical activity and healthy eating behaviour of the community.

While some programs have been identified to address the above needs many have not been found to provide a relevant evidence base for the named interventions. This raises the need for the current evaluation to provide an evidence base for programs aimed at interventions for low socioeconomic populations in rural Queensland. More objective measures are required to assess the physical activity and energy expenditure levels of rural people who perceive that they are unable or not motivated to make the required healthy choices needed.

EVALUATION METHODOLOGY

Evaluation provides two key benefits to policy and program implementation and refinement:

A. It provides a way to measure the performance of an initiative which helps to:

- measure how an initiative is being implemented (the processes), what it is doing (the outputs) and whether it is achieving its purpose (the impacts and outcomes)
- improve the ways it is being implemented
- support future implementation or development of the initiative.

B. It provides a framework for good project or program management which means that:

- the expected outputs, impacts and outcomes are defined and key people involved in the program's management know what the purpose of the program is
- performance can be measured regularly
- program managers can act on the information that they are uncovering and continuously improve the program.

What does this mean for the Healthy Communities Initiative?

The Healthy Communities Initiative is the first of its kind in Australia. It is the first time that:

- the Australian Government has directly funded local government for the delivery of preventative health programs
- many of the local government areas involved have delivered such large, targeted and coordinated preventative health programs to their local communities, and in particular the target populations.

Given this, the Department needs to evaluate the initiative to understand:

- what is working and what is not working so that changes can be made to the overall initiative and improvements can be built into future implementation phases
- what types of programs and activities have the most impact on the target populations and in what types of communities
- the opportunities for improvement in how programs of this type are managed and coordinated by the Commonwealth.

What's involved in Evaluation?

Evaluation is the systematic process of understanding whether or not and to what extent a policy, program or project has met or is meeting the objectives that it set out to achieve. There are a lot of resources available detailing different processes and approaches for undertaking evaluations. Broadly, undertaking an evaluation of a program or project involves **four steps** which are shown below.

1. Evaluation planning and design

Good planning and design is essential in undertaking a solid evaluation and will help to understand what it is we want to know about our project. Good planning and design will help to identify:

What we want to find out: The first step in determining what we want to find out about our project is to understand what the overarching goal of the project is, and the specific objectives that will help the project to meet that goal. These help to define the purpose of evaluation, and the key things that will need to focus on in designing the approach.

Identifying the indicators/measures of success: The next step is working out how it will know whether or not the project is achieving its objectives. This means identifying the actual indicators/measures of success that the evaluator will use to answer each of the evaluation questions.

Identifying how to capture the information: The kinds of information that need to answer the evaluation questions. The step involves considering:

- when to collect that information
- who should do the collection and
- what is the best way to collect the information

Types of evaluation evidence: The information we collect is the evidence of our project's achievements, or where there is room for improvement. In deciding how to collect our evidence, it is important to consider which type of evidence we can collect:

- Quantitative evidence – this is numerical, i.e. it provides numbers in relation to your evaluation question, and may be collected in a variety of ways.
- Qualitative evidence – this is evidence that cannot be expressed in numbers – for example, observations, documents, photos, a personal story.

2. Gathering evaluation evidence

Qualitative approaches:

- **Interviews** – this approach can be useful when we need evidence from a small number of stakeholders, or want a deeper understanding than the information available through other means such as a survey can provide, or when it is not possible or appropriate to survey people.
- **Focus groups** – this involves exploring key themes or broad questions with a small group of people. This can help us to understand peoples' views and experiences in detail, by providing them with an opportunity to discuss the themes/issues together. This may lead to different insights to those which come from individual interviews.

Quantitative approaches: Quantitative approaches use instruments through which to collect the evidence.

Survey-A common approach is through a survey. Surveys involve systematically collecting responses from a group of people to a set of questions, each of which has alternative answers from which the individual chooses their response.

- **Participant feedback forms** – this involves obtaining feedback from participants about the effectiveness of the activity/program and the benefits they have gained, for example, the quality of the activity/program and how it was delivered, what they have learned from

participation (e.g. knowledge, skills), what impact it had had (e.g. confidence, motivation).

- **Systematically measuring** changes in level of physical activity/healthy eating/weight over time for a group of people. This could be used within a program and/or after program completion as a follow-up to see whether changes are sustained.

3. Interpreting evaluation evidence

In interpreting the evidence we collect, it is important to stand back and look at the information as objectively as we can. To understand our evidence it can help to:

- combine the qualitative and quantitative information we have collected for each evaluation question
- think about the key messages that are in the information, and how this relates to what we wanted to find out in the first place
- ask questions such as:
 - are there any changes over time?
 - are there any surprises, i.e. things I didn't expect, and is there anything that helps to explain this? (e.g. has something changed in the broader context outside the scope of the project?)
 - does the information highlight any changes that need to be made? (this is helpful for project improvement, or at the end of the project, in identifying lessons learned for the future).

4. Documenting the findings

Documenting the findings is basically telling the project's story in a way that is meaningful for what it set out to achieve, the activities/programs it used to meet to objectives and what the evidence indicates about how successful or otherwise the project has been. It is important to include not just the good news, but also the things that did not work as well as expected, the challenges or barriers to success, as these findings are just as important as the project's achievements.

So both qualitative and quantitative methods are useful to collect data. This evaluation framework is a starting point, acknowledging that each program has unique circumstances; some programs may not have the capacity or the willingness of participants to complete all sections of the survey. Where a majority of participants did not complete evaluation tools have not been included in the data analysis. Ongoing consultation with the service partners during the development of the evaluation tools and methodology has maximised relevance of the data collection tools and participation in the evaluation.

Intervention

Ten different activities were planned to offer in the community. The activities include: 1) AustCycle, 2) Live life Cycling, 3) Community walk, 4) Community exercise, 5) Aquatic exercise, 6) BEAT IT, 7) EAT IT, 8) HEAL program, 9) Jamie's Ministry of food, and 10) Diabetes Awareness Seminar.

AustCycle

AustCycle, is Australia's only national cycling training program where participants learn basic bike skills from qualified cycling Teachers to give them the confidence to ride more. Training was provided on: conducting a basic bike check, correct riding positions, mounting and dismounting, braking, balancing and cornering, changing gears, riding on hills and stopping and turning.

Purpose: This activity aims to improve participants' skill, knowledge and confidence in riding a bicycle. By providing participants with the appropriate skills it is assumed that they would be more likely to engage in the activity of cycling for recreation and chose the bicycle over the car for shorts trips.

Live Cycling

The Live Cycling Program provides participating women with the skills, knowledge and confidence to encourage them to take up cycling for recreation and fitness and/or gets back on their bikes, and to improve their cycling proficiency and health.

Purpose: This activity aims to improve participants' skill, knowledge and confidence in riding a bicycle. By providing participants with the appropriate skills it is assumed that they would be more likely to engage in the activity of cycling for recreation and choose the bicycle over the car for shorts trips.

Community walk

A range of walking programs provided including Heart Foundation Walking, 10,000 Steps Australia Walking Program and community walks. The Heart Foundation Walking walk audit tool used to assess the walkability of selected walking routes

Purpose: These activities aim to provide participants with the opportunities to participate in regular informal walking groups while increasing their physical activity levels.

Community exercise

Physical activity sessions provided to unemployed adults in local recreational facilities and green spaces.

Purpose: This activity aims to increase participants' awareness of the benefits of physical activity and interaction with nature and the outdoors by providing the opportunity to participate in gardening and environmental activities such as the Community Environment Program and Community Working Bees. These activities support community inclusion and provide physical activity opportunities ranging from general movement such as stretching, lifting and walking through to more strenuous physical activities such as digging holes and carrying logs. In some sites a walk through the area (walking trails) incorporated into the program where weed identification and control, plant identification and seed collection activities were undertaken under the guidance of council staff officers.

Aquatic exercise

Target group members were facilitated the opportunities for low intensity physical activities.

Purpose: This activity aims to improve their knowledge and skills of physical activity.

BEAT IT

BEAT IT is an evidenced based innovative, tailored physical activity and lifestyle education/modification program. It is designed to assist those at risk of, or living with, diabetes, heart disease and other chronic conditions, through awareness and physical activity – all in a safe and supportive environment. The BEAT IT program consists of twice weekly group-based physical activity training plus fortnightly lifestyle education and nutrition sessions.

Purpose: This activity aims to help participants to improve their health through awareness and physical activity.

HEAL: Life style Modification Programs: Healthy Eating and Active Lifestyle program

To promote weight loss and the management and/or prevention of a variety of metabolic conditions through nutrition and physical activity intervention this program focuses on combining nutrition, physical activity and psychology by addressing:

- Behaviour modification and goal setting
- Benefits of being physically active and physical activity opportunities
- Nutrition education, label reading, eating out, recipe modification and low fat cooking techniques
- Prevention and/or management of chronic disease (e.g. Type 2 diabetes)

Purpose: This activity aims to increase participant's awareness of the health benefits of physical activity. By providing participants with the appropriate knowledge and skills they would be more likely to engage in physical activity and make healthy lifestyle choices.

EAT IT-Healthy Eating Education Program

EAT IT is a 6 week nutritional educational program that introduces participants to healthy foods and teaches the skills required to prepare these foods. EAT IT also includes practical skills such as how to read a food label, healthy cooking tricks, portion control and how to shop healthy on a budget.

Purpose: This activity aims to increase participant's awareness of the healthy eating habits and improve their knowledge of good nutrition. By providing participants with the appropriate knowledge and skills they would be more likely to make healthy food choices and prepare healthy food.

A variety of healthy eating programs and activities were implemented showing participants how to prepare and cook healthy meals. Activities included:

1. Ministry of Food Van - Jamie's Ministry of food
2. Cooking activities and information sessions delivered to target group participants at venues such community Centres and halls by suitably trained volunteers and supported by Blue Care and Qld Health Nutritionists and Dietitians.
3. Healthy eating/nutrition presentations by qualified speakers at healthy cooking classes and at community events.

4. Recipe books containing recipes relating to Survival Foods (microgreens, pulses and herbs), surviving cyclone season, “Homemade Take-away in Minutes” and easy meals for carers will be prepared in house and distributed at healthy cooking programs and community lifestyle events.

Jamie’s Ministry of food

A place where everyone, regardless of age, gender, ethnicity or background, can learn basic cookery skills in a friendly, supportive and fun environment. Participants learn through practical hands-on cooking classes that demonstrate how easy and cheap it can be to make simple and nutritious meals from scratch.

Purpose: Jamie's Ministry of Food cooking course covers all the basics you need to know, to enable you to make better food choices and ultimately live a healthier life.

Provide basic education and a little bit of mentoring, on how to shop, how to save money and how to make beautiful, tasty, quick meals for yourself or your family. Learn how to bake, grill, stir-fry, boil and roast with delicious ingredients and gain confidence in the kitchen.

Health Promotion: Diabetes awareness seminar

For our bodies to work properly we need to convert glucose (sugar) from food into energy. A hormone called insulin is essential for the conversion of glucose into energy. In people with diabetes, insulin is no longer produced or not produced in sufficient amounts by the body. So when people with diabetes eat glucose, which is in foods such as breads, cereals, fruit and starchy vegetables, legumes, milk, yoghurt and sweets, it can’t be converted into energy. Instead of being turned into energy the glucose stays in the blood. This is why blood glucose levels are higher in people with diabetes.

This activity provides information and encouragement to participants about diabetes programs and health promotion initiatives to maintain healthy lifestyle.

Purpose: This activity aims to increase participants’ knowledge and awareness regarding diabetes to maintain healthy lifestyle and the skill appropriate for the low socioeconomic people in the Fraser Coast region.

Participants of the program

The target groups for this initiative were adults over 18 not in full time employment. This included retired people, people with a disability and their carers, long term unemployed, those in part-time or casual employ. A total of 1718 people took part in the LLH program, of them 821 people completed the evaluation survey- 640 in physical activities, 103 in healthy lifestyle programs and 78 in health promotion programs (Table 4).

Participants recruitment

Participants were recruited through:

1. Referral pathways
2. Partnership with Job Service Agencies and Disability Employment Networks
3. Carer Support organisations
4. The project reference group members and network agencies
5. Existing council activities, programs, and departments such as community development and senior sections
6. Trainers, program and activity providers
7. Media
8. Marketing activities - relevant community events.

Participants consent

Participants were provided with information about the evaluation study both verbally and in writing including the voluntary nature of participation, their ability to withdraw from the study at any time without any impact. Participants were assured that participation in the program was entirely voluntary. There were no physical or intended psychological risks to any of the participants. Social welfare was actually enhanced by their involvement in community group activities in a safe environment.

Data collection

The pre, post and follow up survey were used to collect data from the participants. All data collection from participants were undertaken by the service providers - Fraser Coast Regional Council (FCRC) with USQ's involvement limited to development of evaluation tools, data entry, analysis and reporting the results.

Participant surveys were administered during June 2012 to March 2014 by the trainers/facilitators delivering the programs and activities at entry and exit points of individual activities around established benchmarks within that activity. For example: information in relation to changes in weekly exercise or amount of fruit and vegetables consumed, changes in skill levels etc.

Table 4: Program-wise-participants' profile

		Physical activity						Healthy lifestyle				Health promotion			Total (n)	Percent
		AusCycle	Live cycling	Community walk	Community exercise	Aquatic exercise	Sub-total	BEAT IT	EAT IT	Heal	Sub-total	Jamie's Ministry of Food	Diabetes awareness seminar	Sub-total		
Sex	Male	3	-	18	11	31	63	14	6	1	21	8	7	15	99	12
	Female	8	32	65	102	370	577	38	20	24	82	37	26	63	722	88
	Total	11	32	83	113	401	640	52	26	25	103	45	33	78	821	100
Age	18-29 years	-	-	-	23	46	69	1	1	1	3	9	1	10	82	10
	30-44 years	2	-	1	19	95	117	-	1	1	2	9	2	11	130	16
	45-59 years	2	14	15	20	115	166	5	7	9	21	19	4	23	210	26
	60+years	2	18	66	51	140	277	45	17	14	76	8	26	34	387	48
	Total	6	32	82	113	396	629	51	26	25	102	45	33	78	809	100
Employment	Unemployed	-	4	5	11	71	91	-	6	4	10	13	3	16	117	14
	Part Time	2	6	8	17	73	106	2	-	2	4	11	-	11	121	15
	Casual	2	4	2	13	29	50	1	1	4	6	3	-	3	59	7
	Retired	2	18	67	51	131	269	45	16	14	75	8	26	34	378	47
	Other	-	-	1	21	97	119	4	2	1	7	9	5	14	140	17
	Total	6	32	83	113	401	635	52	25	25	102	45	33	78	815	100
Disable	Yes	-	2	14	12	72	100	11	9	4	24	9	5	14	138	18
	No	-	30	68	101	305	504	41	17	21	79	36	28	64	647	82
	Total	-	32	82	113	377	604	52	26	25	103	45	33	78	785	100
Carer	Yes	-	2	4	11	41	58	1	2	-	3	4	4	8	69	9
	No	-	30	78	102	333	543	51	24	25	100	41	29	70	713	91
	Total	-	32	82	113	374	601	52	26	25	103	45	33	78	782	100

Data were also collected via survey at three or six months post activities to determine if behaviour changes occurred and had been sustained among the participants. Data collection started in June 2012 and continued until March 2014

Data Analysis

Qualitative data were analysed thematically. Quantitative data were analysed using IBM SPSS Statistics 21. Descriptive statistics such as frequency counts and percentages as well as means, standards deviations, were calculated from summaries (including the data pertaining to demographic profile of the participants, healthy eating, physical activity, and barriers to maintaining a healthy lifestyle). Chi-Square, *t*-test and One-Way ANOVA were calculated to determine whether there were significant differences in opinions of the participants with regards to their knowledge, confidence, behaviour changes in healthy eating and physical activities, based on their time of participation in the survey. The resulting differences in healthy eating and physical activities were tested for significance at .05 level of probability with an accompanying 95% confidence level. Results are presented as de-identified and aggregated data. Results are presented as de-identified and aggregated data.

Ethics approval

Ethics approval was obtained from the University of Southern Queensland Human Research Ethics Committee prior to commencement of the project (reference number is H12REA110-Appendix 1).

FINDINGS

Profile of the participants

The highest proportions (90%) of participants in physical activity programs were female compared to 81% in the health promotion and 80% in the healthy lifestyle program; overall 88% of the participants were female. Forty-eight percent of the participants were over 60 years of age; 75% in the healthy lifestyle program, 44% in physical activity, and 34% in health promotion. Forty-seven percent of the participants were retirees, 73% in the healthy lifestyle program, 44 % in health promotion, and 42% in physical activity. Twenty-three percent of participants were disabled in the healthy lifestyle program, compared to 18% in health promotion, and 17% physical activity; overall, a total of 18% were disabled participants and only 9% were carers (Table 5).

Table 5: Profiles of participants in all the healthy lifestyle programs

		Physical activity		Healthy lifestyle		Health promotion		Total (n)	Percent
		Total	Percent	Total	Percent	Total	Percent		
Sex	Male	63	10	21	20	15	19	99	12
	Female	577	90	82	80	63	81	722	88
	Total	640	100	103	100	78	100	821	100
Age	18-29 years	69	11	3	3	10	13	82	10
	30-44 years	117	19	2	2	11	14	130	16
	45-59 years	166	26	21	20	23	29	210	26
	60+years	277	44	76	75	34	44	387	48
	Total	629	100	102	100	78	100	809	100
Employment	Unemployed	91	14	10	10	16	20	117	14
	Part Time	106	17	4	4	11	14	121	15
	Casual	50	8	6	6	3	4	59	7
	Retired	269	42	75	73	34	44	378	47
	Other	119	19	7	7	14	18	140	17
	Total	635	100	102	100	78	100	815	100
Disable	Yes	100	17	24	23	14	18	138	18
	No	504	83	79	77	64	82	647	82
	Total	604	100	103	100	78	100	785	100
Carer	Yes	58	10	3	3	8	10	69	9
	No	543	90	100	97	70	90	713	91
	Total	601	100	103	100	78	100	782	100

Main sources of information about the Live Life Healthy Program

The following activities were implemented: AustCycle, live cycling, community walk, community exercise, aquatic exercise, BEAT IT, EAT IT program, healthy eating, Jamie's Ministry of Food and Diabetes Awareness seminar. The most commonly used sources of information for each of the programs were newspaper articles, past participants' referrals, friends, TV/radio, council website, community group, and information sessions (Figure 1). The least cited sources were job services, Facebook, reference groups, community groups, council's web site and the LLH program flyer.

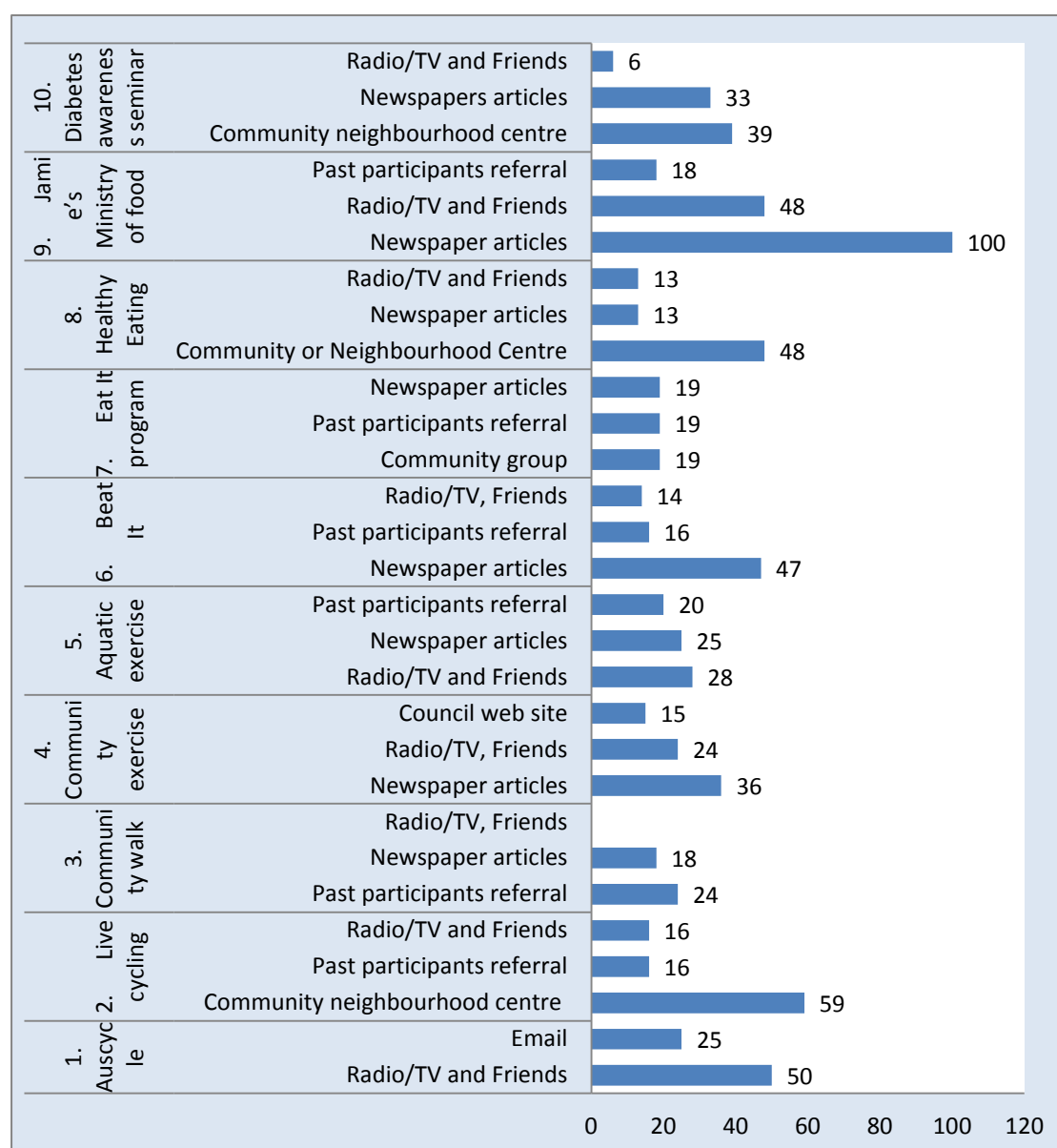


Figure 1: Main sources of information used by the participants (%)

Live Life Healthy Programs

Physical activity

The five physical activities - AustCycle, live cycling, community walk, community exercise, and aquatic exercise were organized in the community. Of the five activities, the aquatic exercise had the highest number of participants (401), compared to the community exercise (113), community walk (83), live cycling (32) and AustCycle (11). Most participants (90%) were female and more than two-fifths (44%) of participants were over 60 years of age and retired (42%). Of the participants, 17% had disabilities and 10% were carers.

1. AustCycle

There were 11 participants in this program and all of them had their own bicycle. One participant received information about the program through email, two other heard about it through friends/colleagues and the others did not mention any sources of information.

Reasons for participation in AustCycle program

The participants stated that the main reasons to participate in this program were to improve health, cycling skills, and cycling confidence, meet people, learn about road safety, and find out more about cycling.

When asked how often they ride a bike, one participant stated that they had rode a bike in the last week, another in the last month, and another one more than a year ago.

Participants were further asked to respond to the statements about the AustCycling program on a five point scale. Nine participants completed this section (Table 6) and indicated the program was enjoyable, information was easy to understand, they learnt new skills, and felt safe doing bike skills program.

Table 6: Opinions of the participants in AustCycling program (n)

Statement	Disagree	Agree
I really enjoyed the AustCycle program		9
I found it hard to keep coming to the AustCycle training	9	
The information was easy to understand		4
The teacher(s) were clear		4
I learnt new skills doing the program		9
I improved my bike skills doing the program		9
I felt safe doing the bike skills program		8

Reason for riding

The participants were asked for what reason they would cycle . All of the participants indicated they would continue riding and would do this for improving cycling skills and health, find out more about cycling, have fun, and exercise.

Intention to continue riding

Of the four participants three participants (75%) indicated they would continue riding for transport.

Confidence in riding

The participants were asked to state their level of confidence about riding on a six point scale. The mean rating was 5, indicating that they had quite a high level of confidence in riding a bicycle. Similarly they were asked to indicate their confidence level about riding in traffic. The average mean score was 4.67, meaning that they had a reasonably high level of confidence in riding a bicycle in traffic.

When asked what the most satisfying part of the training program was, the responses included new experience and skill, friendship and fitness. When asked to identify the most challenging part of the program, the common responses were endurance, hills and balance (See Appendix 3).

2. Live Cycling

Demographic profile

Total participants in this program were 32 females with 56% over 60 years of age and 44% in the 45-59 age group (Figure 2). More than half (56%) of the participants were retirees; compared to 18% were part time workers, 13% were casual workers and 13% unemployed. Only two (6%) disabled people with carers participated in the program.

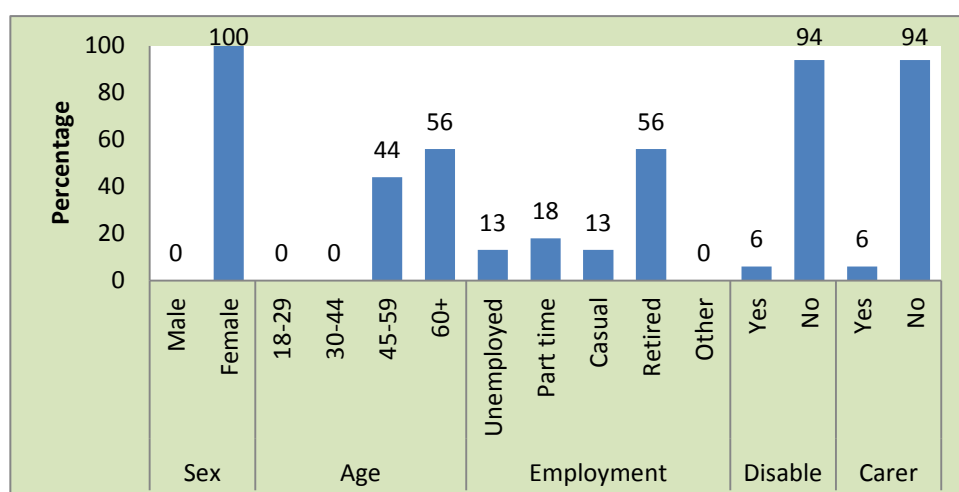


Figure 2: Demographic profile of participants in the Live Cycling program

Amount of exercise

The mean ratings of participants ranged from 3.86 to 5.67, indicating that they were riding bicycle 3 or more times a week (Table 7). There was a reasonable increase in the mean amount of exercise in the 60 minute slot from before to after participation in the program, however, these differences were insignificant ($t=1.91$, $p=.06$), as were those in the 30 minute and 150 minute slots (see Appendix 3).

Table 7: Amount of exercise of the participants in live cycling program

Exercise in each week	Time	n	Mean*	SD	t value	Sig.
30 minutes	Before	12	4.50	1.31	.98	.33
	After	7	3.86	1.46		
60 minutes	Before	15	5.40	.74	1.91	.06
	After	19	4.68	1.29		
≥150 minutes	Before	6	4.17	1.33	-1.82	.11
	After	3	5.67	.58		

*Mean calculated using a six point scale: 1= never, 2=once a week, 3= 2 times a week, 4=3 times a week, 5= 4 times a week, 6= 5 or more times a week

Bicycle techniques

There were 32 participants in the program, however only 25 participants completed the survey after completing the program. Table 8 showed that before participation in the program the mean ratings in the techniques ranged from 3.09 to 3.81, indicating that participants had poor to fair level of skills in bicycling; however, after participation in the program, the mean ratings ranged from 1.64 to 2.44, indicating their skill level had improved. T-test results show these differences in mean ratings (before and after) were statistically significant, indicating that participants skills - in conducting a basic bike check, correct riding position, mounting

and dismounting, braking, balancing and cornering, changing gears, riding on hills, and stopping and turning- had improved significantly following their participation in the program.

Table 8: Skills in riding bicycle

Bicycle techniques	Before (n=32)		After (n=25)		t value	Sig
	Mean*	SD	Mean	SD		
Conducting a basic bike check	3.81	1.15	2.44	0.77	5.14	.001
Correct riding position	3.38	1.10	1.72	0.54	6.89	.001
Mounting and dismounting	3.13	1.07	1.64	0.57	6.27	.001
Braking, balancing and cornering	3.09	1.20	1.92	0.57	4.50	.001
Changing gears	3.38	1.07	2.00	0.58	5.79	.001
Riding on hills	3.69	1.148	2.44	0.58	4.95	.001
Stopping and turning	3.09	1.027	1.84	0.47	5.65	.001

*Means were calculated on a five point scale: 1= very good, 2=good, 3=fair, 4=poor, 5= not confident at all

Changes in behaviour

The data in Figure 3 show that most participants (92%) this program had increased their skills and confidence level, as well as their intention to increase physical activity (92%) and awareness of healthy lifestyle (72%). All participants were satisfied with the program and would refer it to others see Table 17 in Appendix 2).

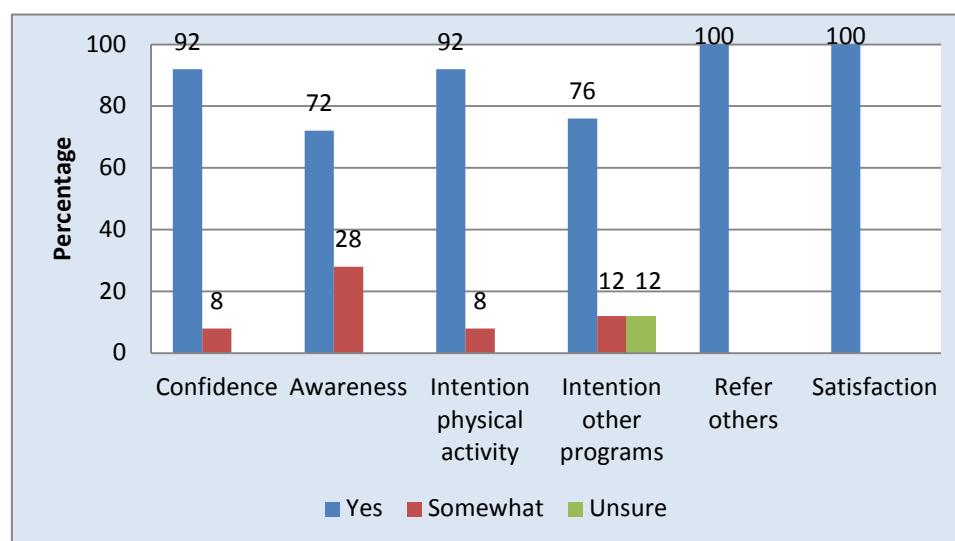


Figure 3: Percentage distribution of participants in the live cycling program

Confidence in cycling

The participants were asked to indicate their level of confidence on a six point scale: 1 very low and 6 very high. Before participation in the program, the mean rating of the participants was 2.97; it increased to 4.92 after participation. T-test results indicated that this increase in confidence level of the participants in cycling was highly significant ($t=-5.51$, $p=.01$) (Figure

4). This means that participants' confidence improved significantly following their participation in the live cycling program.

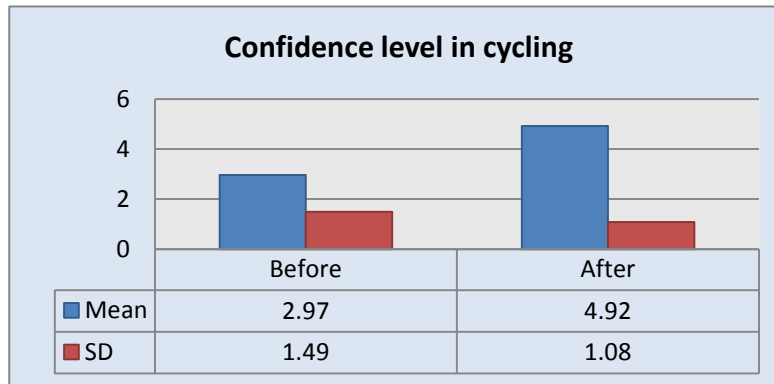


Figure 4: Confidence level of participants in the cycling program

Health status

The health statuses of participants were measured using a five point scale: 1=excellent, 2=very good, 3=good, 4=fair, 5=poor. Analysis of data indicated that there were insignificant improvements in the overall health of participants after completing the program ($t=1.10$, $p=.28$). The mean ratings showed that all participants were in very good health both before (mean=2.33) and after (mean=2.08) participation in the program (Figure 5).

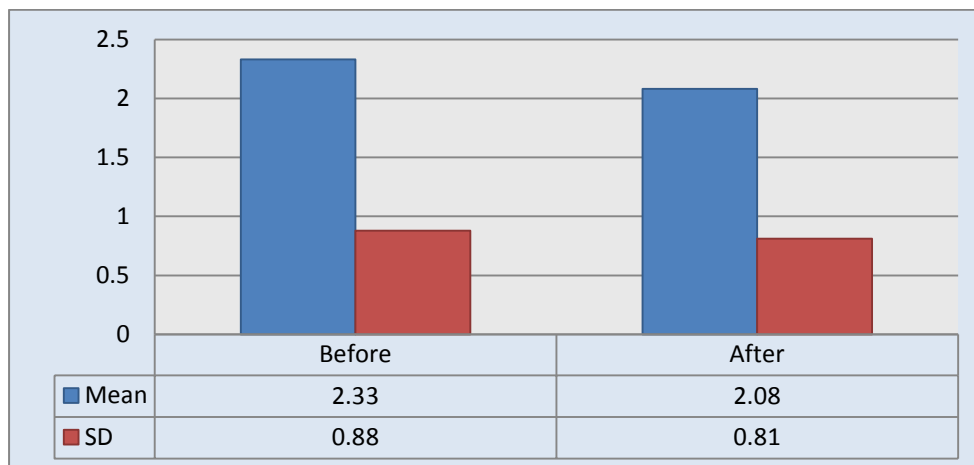
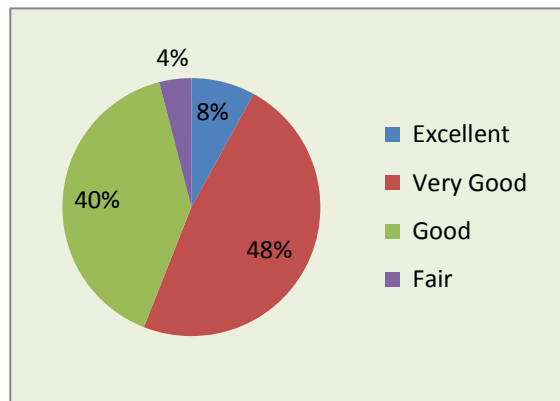


Figure 5: Health status of the participants

Level of fitness



After completion of the program, the participants were asked to respond on a five point scale (1=excellent, 2=very good, 3=good, 4=fair, 5=poor) about their level of fitness. Almost nine-tenths (88%) of the participants stated that their fitness was either good or very good (Figure 6). The overall mean rating was 2.40 indicating that the participants' fitness was very good.

Figure 6: Level of fitness of participants in live cycling program

Purpose of exercise

The participants were asked about the reasons for cycling and the majority stated that they cycled for fitness (96%), recreation (92%), and transport (60%). The Chi-Square values indicated that there were differences between before and after participation in the program (Table 9). The odd ratio's indicated that after participating in the program, participants were 19% more likely to continue cycling for fitness, 29% for recreation and 15% for transport.

Table 9: Cycling for exercise of the participants

Reasons for exercise		Time		Chi-Square	Sig.
		Before (%)	After (%)		
Fitness	Yes	31	96	24.45 Odd ratio=.19	.001
	No	69	4		
Recreation	Yes	25	92	25.39 Odd ratio=.29	.001
	No	75	8		
Transport	Yes	19	60	10.26 Odd ratio=.15	.001
	No	81	40		

3. Community walk

Demographic profile

Total participants in this program were 83, with 78% female (Figure 7). The majority (81%) of the participants were 60 years of age or over, and 18% were in the 45-59 age group. Most (81%) of the participants were retirees. Of the participants, 17% had disabilities and 5% were carers.

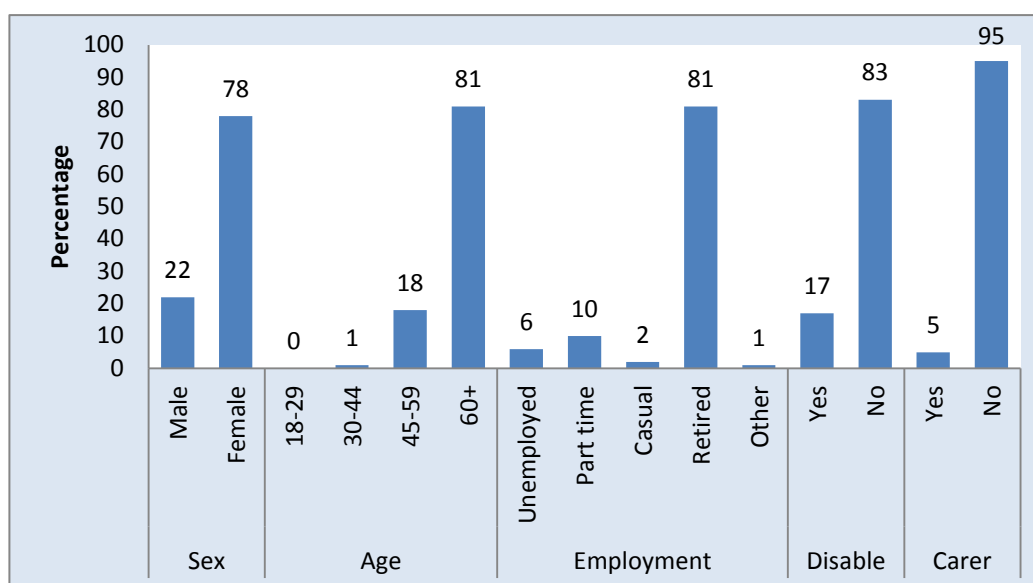


Figure 7: Demographic profile of participants in the community walk program

Change in behaviour

Participants were asked to respond to the statements concerning their behaviour on a four-point scale -yes, somewhat, no, and unsure- after the program and in the follow up to the program (see Appendix 3). Analysis of the data indicated that the majority (91%) of participants after the program and 75% in the follow up, stated that this program had increased their awareness of healthy lifestyle activities (Figure 8). After completing the program 72% of participants intended to increase the amount of physical activity, however in the follow up 50% stated that they had increased the amount of physical activity. Most participants (82%) noted that they intended to sign on for other programs of LLH program and 93% would like to refer the community walk program to others. The majority of participants were satisfied with the program both after (93%) and in the follow up (75%) survey (see Tables 18 & 19 in Appendix 2).

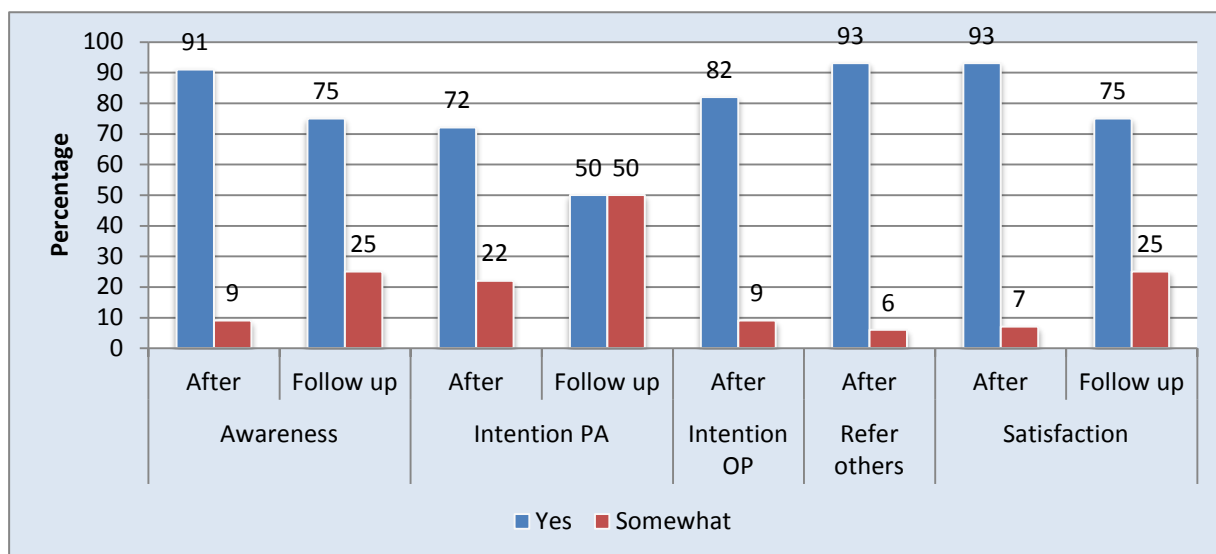


Figure 8: Percentage distribution of participants in the community walk

Note: PA=physical activity, OP=other programs

4. Community exercise

Demographic profile

There were 113 participants in the program with 90% of them female (Figure 9). More than two-fifths (45%) of participants were 60 years of age or over, and retirees. Of the participants 11% had a disability and 10% were carers.

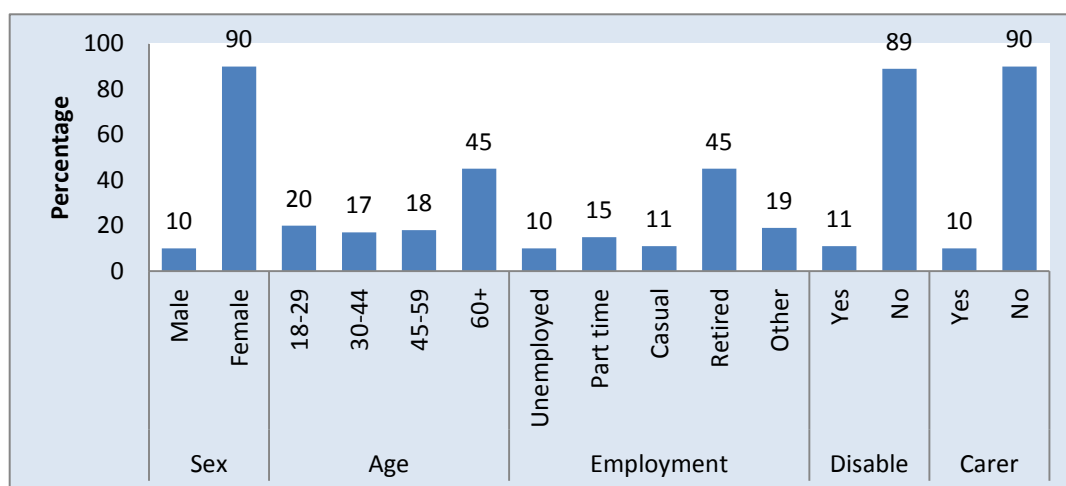


Figure 9: Demographic profile of participants in the community exercise program

Changes in behaviour

The participants were asked whether this program has changed their behaviour (see Appendix 3). The highest proportion (86%) of participants felt that the program had increased their awareness of healthy lifestyle activities (Figure 10). Likewise, 89% of participants intended to increase their amount of physical activity, and 77% to sign on for other programs. Most participants (93%) noted that they would like to refer others to participate in the community exercise program. Overall, they (99%) were satisfied with the community exercise program. When asked if the program had been of benefit, 100% of the participants indicated that it had (see Table 20 in Appendix 2).

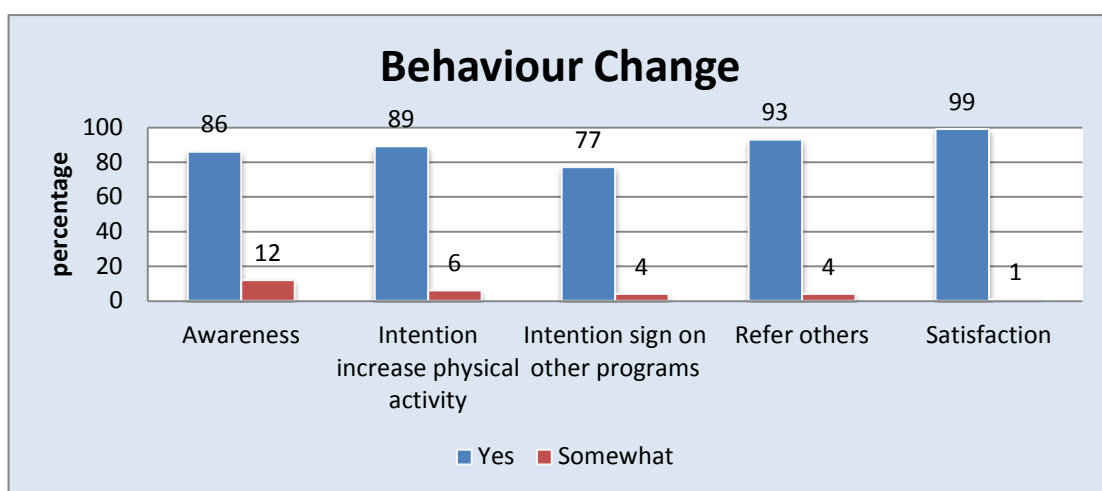


Figure 10: Percentage distribution of participants changes in behaviour

Activities

The activities that had the highest proportion of participants were boot camp (35%), boxercise (33%), and seniors light and easy (33%); those that had the lowest were mums and bubs (6%) and slackline (1%) (Figure 11).

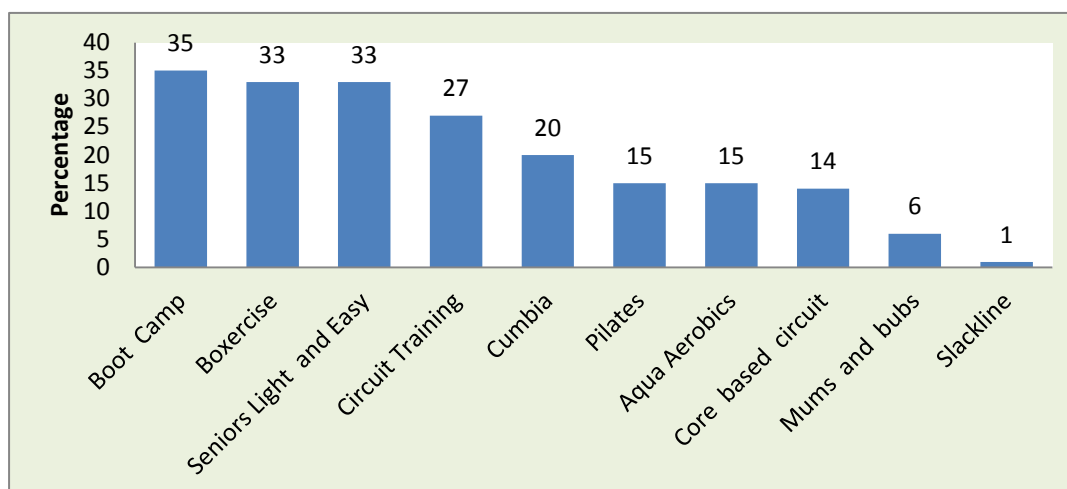


Figure 11: Percentage distribution of participants in the community exercise programs

5. Aquatic exercise

Demographic profile

There were 401 participants in the aquatic exercise program with 92% of them female. More than one-third (35%) of the participants were 60 years old or over and 33% of them were retirees (Figure 12). Of the participants, 19% had disabilities and 11% were carers.

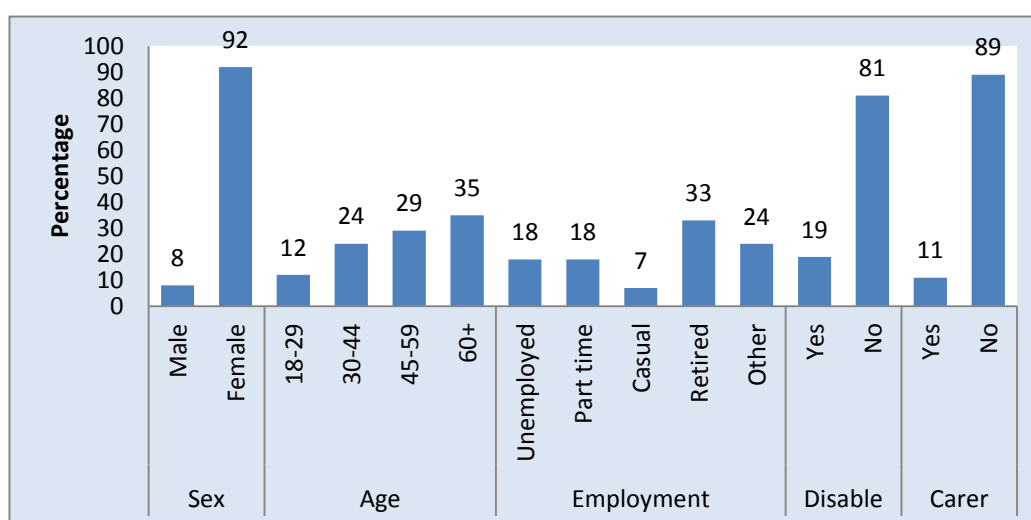


Figure 12: Demographic profile of participants in the aquatic exercise program

Activities

The activities that had the highest proportion of participants were aqua aerobics (69%), aqua zumba (43%), and aqua light (16%); those that had the lowest were mums and bubs (1%) and marathon (1%) (Figure 13).

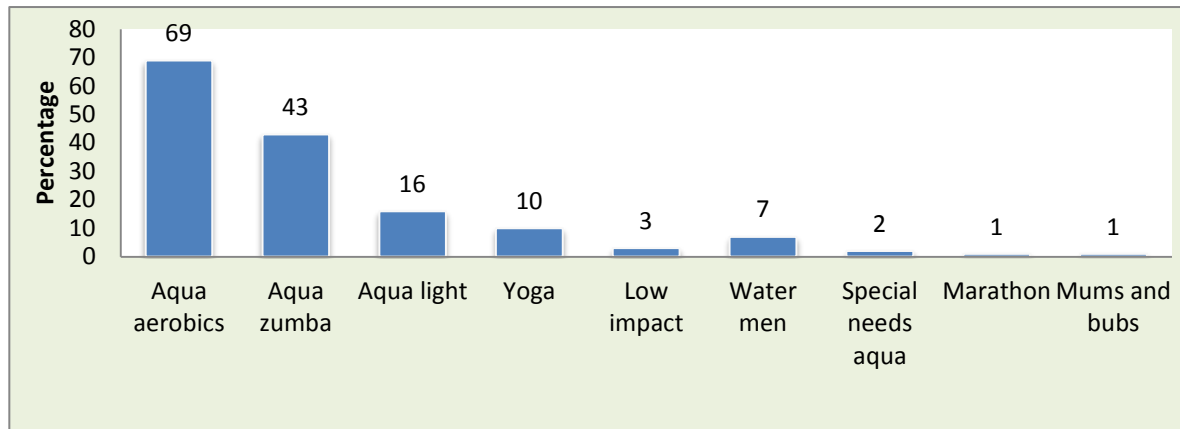


Figure 13: Percentage distribution of participants in various aquatic exercises

Changes in behaviour

The participants were asked to respond to whether this program has changed their behaviour (see Appendix 3). The majority (83%) of participants felt that participation in the program had increased their awareness of healthy lifestyle activities; most (87%) of them indicated that they intended to increase their amount of physical activity and 73% expressed their interest to sign on for other LLH programs (Figure 14). Of the participants, 96% indicated that they would refer the program to others and 90% were satisfied with the program. When asked if the program had been of benefit, 99% of the participants indicated that it had (see Table 21 in Appendix 2).

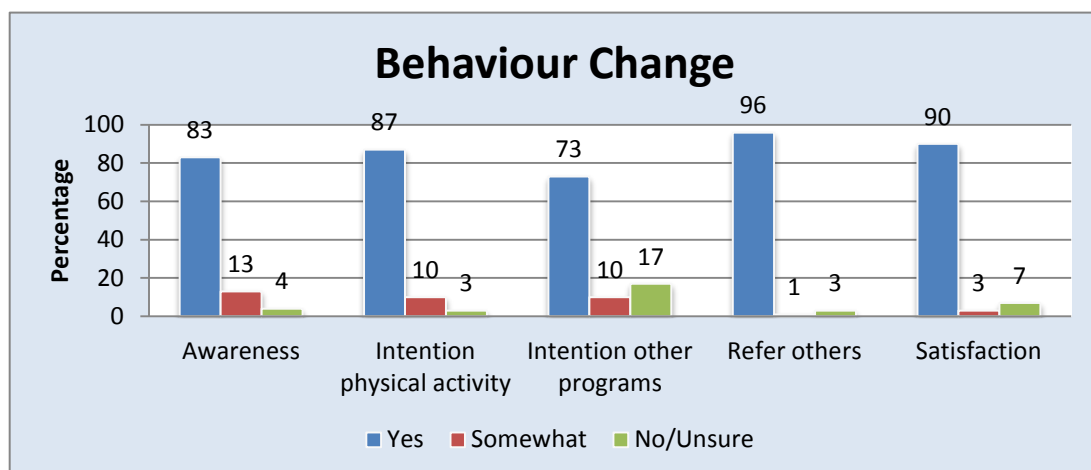


Figure 14: Percentage distribution of participants in the aquatic program

Qualitative data: Feedback on physical activity programs

The participants were asked to provide their feedback on physical activities of the LLH program. The responses were summarised based on themes (Table 10). The participants stated that this program had increased their knowledge about the benefits of a healthy lifestyle and had motivated them to increase their exercise levels and lose weight.

Table 10: Participants feedback on physical activity program

Themes	Comment	Number
Changes in Knowledge	Greater awareness of healthy lifestyle and forms of exercise available	14
	Greater awareness of pool-base exercise programs	3
	Aware about a healthier and fitter lifestyle	2
	Aware about the amount of exercise	2
	Learnt correct technique to exercise	2
Changes in behaviour	Increased health and fitness	53
	Increased amount of exercise	26
	Program motivated me to improve my lifestyle and manage obesity	13
	Program assisted with weight loss/control	12
	Program motivated me to lose weight	2
Confidence	Stronger and aware of what needs to strengthen	10
	Feel safer in the water	7
	Help keeping me fit	3
Usefulness of the programs	Program has increased my flexibility/mobility	21
	I have more energy as a result of the program	10
	The exercise does not strain joints and is great for those with disabilities	7
	Program has got me out and exercising	7
	Program has encouraged me to increase exercise	6
	Increased my social involvement	4
	Inspire fitness	4
	Help to try different activities	4
	Lost weight	4
Satisfaction	Feel better and fitter	14
	A fun way to exercise	5
	Great program	5
	Program has increased my mental and physical strength	5
	No cost so was able to partake	3
	New friends	2
	Healthier	2

Healthy Lifestyle – Healthy Eating

Three different healthy lifestyle activities - BEAT IT, EAT IT, and HEAL programs - were organised in the community. The BEAT IT program had the most participants (52), compared to the EAT IT (26) and HEAL programs (25). Within the healthy lifestyle programs, 80% of participants were female and three-quarters (75%) of them were 60 years of age or over, with 73% retired. Of the participants, 23% had disabilities and only 3% were carers.

6. BEAT IT – Lifestyle Program

Demographic profile

Of the 52 participants, 73% were females and 27% males (Figure 15). The highest proportion (88%) of participants were 60 years old or over, and 86% were retired. Within the group, 21% of the participants had disabilities and only 2% were carers. Of the 52 participants in the program, 48 completed the survey on finishing the program and 12 completed the follow up survey.



Figure 15: Demographic profile of participants in the BEAT IT program

Reasons for exercise

Data in Table 11 indicated that there was a statistically significant difference between the before, after, and follow up data regarding the proportion of participants exercising for fitness ($\chi^2=7.99$, $p=.02$). This indicates that the proportion of participants exercising for fitness varied substantially between before and after the program, and the follow up, meaning that more people were involved in exercising for fitness following the program. No significant differences were found in the proportion of participation of the participants in exercise for recreation and transport.

Table 11: Differences in exercise of participants in the BEAT IT program

Reasons for exercise		Time			Chi-Square	Sig.
		Before (%)	After (%)	Follow up (%)		
Fitness	Yes	71	92	92	7.99	.02
	No	29	8	8		
Recreation	Yes	29	38	58	3.81	.15
	No	71	62	42		
Transport	Yes	8	19	8	3.00	.23
	No	92	81	92		

Amount of exercise

The mean ratings (Figure 16) indicated that there were significant differences in the amount of 30 minute ($F=3.33$, $p=.05$) and 60 minute ($F=6.71$, $p=.01$) exercise between the before, after, and follow up data (see Table 22 in Appendix 2). Performing the Tukey test indicated that there was a significant improvement in the amount of 30 minute exercise between before and after participation ($p=.05$) and the amount of 60 minute exercise between before and after participation ($p=.01$). That is, after the participation in BEAT IT program the level of exercise had increased from four times to five in 30 and 60 minutes slots. Further, there were insignificant differences between the before and follow up data, and the after and follow up data in both of these time periods (See Table 23 in Appendix 2).

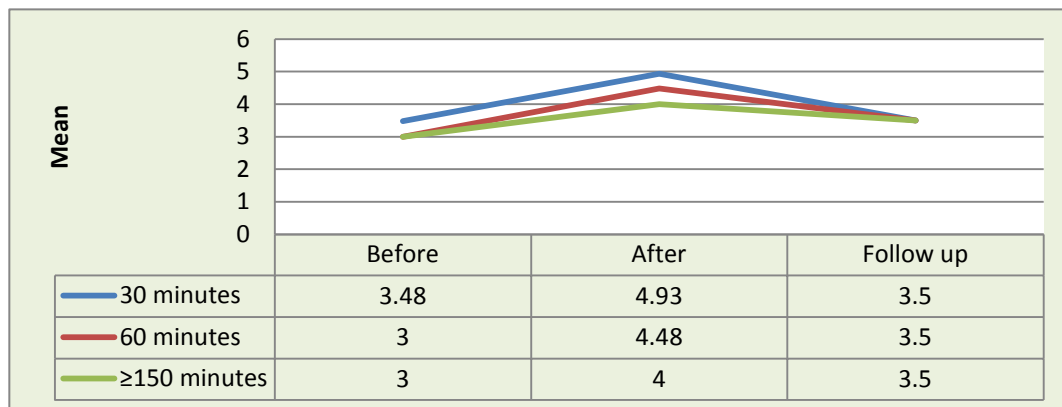


Figure 16: Amount of exercise of participants in the BEAT IT program

Note: means were calculated using a six point scale: 1=never, 2=once a week, 3=2 times a week, 4=3 times a week, 5=4 times a week, 6=5 or more times a week.

Eating habit of participants

Analysis of data (F-test) indicated that there were insignificant differences in eating habits-including preparing and cooking a meal from basic ingredients ($F=.56$, $p=.58$), eating take-away food ($F=1.87$, $p=.16$), eating vegetables or salad ($F=2.35$, $p=.10$), and eating fruit

($F=1.68$, $p=.19$) between before and after the participation and the follow up data of participants in the program (Figure 17) (see Table 24 in Appendix 2). This means that the participants prepared and cooked food from basic ingredients, ate less take-away food, and more vegetables and fruits.

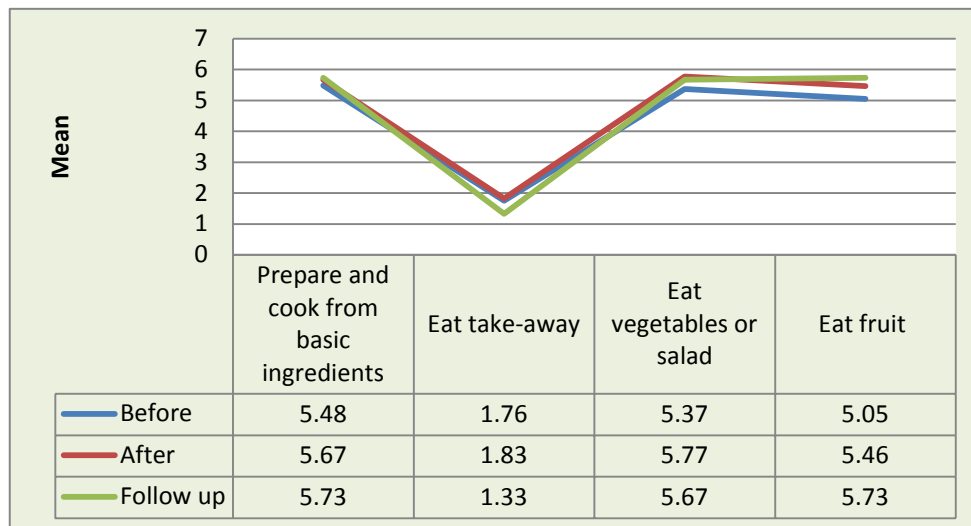


Figure 17: Eating habit of the participants

Note: Means were calculated using a six point scale: 1=never, 2=once a week, 3=2 times a week, 4=3 times a week, 5=4 times a week, and 6=5 or more times a week.

Health status

There were significant differences in the health status ($F=7.15$, $p=.01$) and fitness of the participants ($F=9.06$, $p=.01$) after the program. The health status and level of fitness of the participants were very good, meaning that the program had influence on their health conditions (Figure 18) (see Table 25 Appendix 2). Further analysis indicated that there was a significant improvement in the participants' health status between before and after participation in the program ($p=.04$), and before and the follow up to the program ($p=.01$). Analysis also indicated there was a significant improvement in participants' level of fitness between before and after participation in the program ($p=.01$), and before and the follow up to the program ($p=.01$) (see Table 26 in Appendix 2).

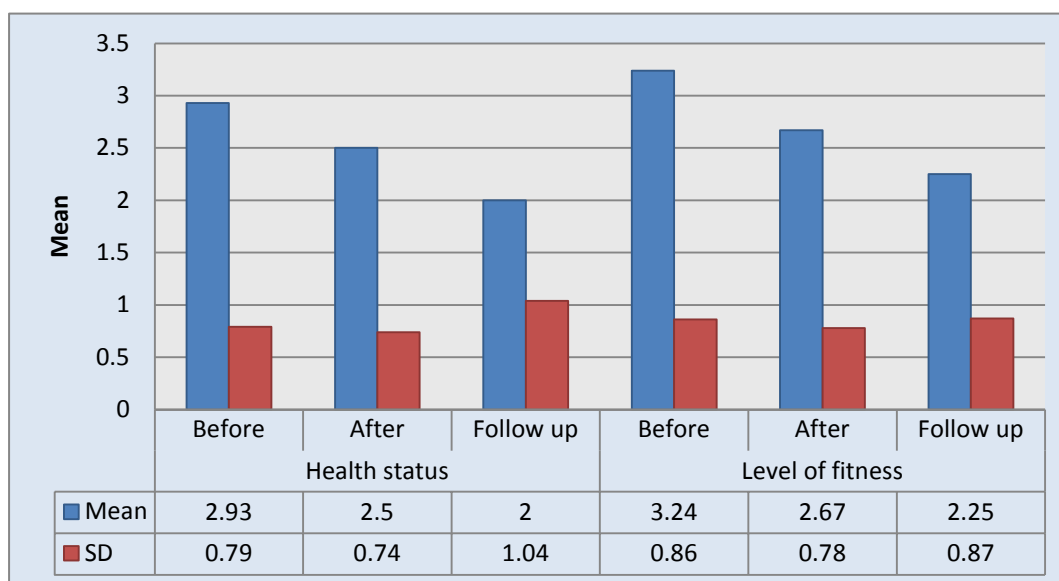


Figure 18: Health condition of the participants

Note: means were calculated on a five point scale: 1=excellent, 2=very good, 3=good, 4=fair and 5=poor

Confidence in maintaining healthy lifestyle

Participants were asked to indicate whether this program had increased their confidence in areas of maintaining a healthy lifestyle on a five point scale: 1=not at all, 2=a little bit, 3=moderately, 4=quite a bit, 5=extremely (see Appendix 3). The mean ratings of the participants after the program ranged from 3.37 to 3.82, and in the follow up from 3.83 to 4.00 (Figure 19). This indicates that the program had increased the participant's confidence levels from a moderate level to a slightly higher level in shopping, budgeting and meal planning, buying affordable food items for healthier home cooked meals, choosing healthy food, and planning easy healthy meals. However, these differences in the confidence levels of participants after the program and in the follow up were statistically insignificant (see Table 27 in Appendix 2).

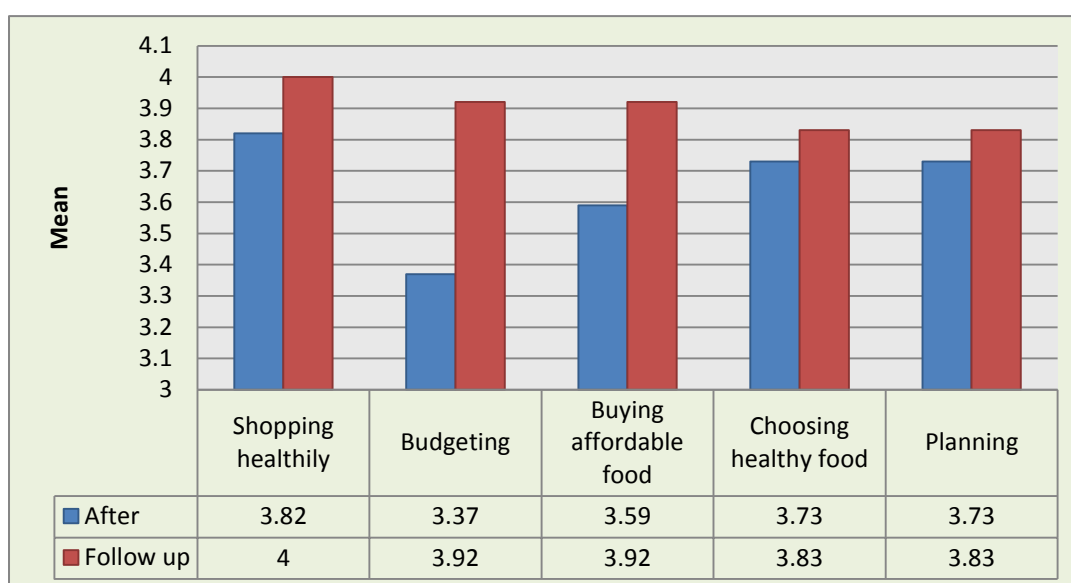


Figure 19: Confidence level of participants in the BEAT IT program

Changes in behaviour

The participants were asked whether this program had changed their behaviour. Data shown in Figure 20 indicated that most participants both after and in the follow up, felt that participation in the program had increased their knowledge of healthy eating and an active lifestyle (93% after and 83% in the follow up), their skills and confidence in making healthy choices (81% after and 92% in the follow up), awareness of healthy lifestyle activities (83% after 83% and 100% in the follow up), and awareness of risk factors associated with poor diet and low levels of physical activity (90% after and 92% in the follow up).

The majority (88%) of participants indicated that they intended to change their lifestyle with respect to healthy eating and 83% with respect to physical activity. In the follow up, 92% of respondents stated that they had changed their lifestyle with respect to physical activity, however 59% stated that they had changed their lifestyle with respect to healthy eating. Of the participants, 93% noted that they would refer others to the program. The majority (98%) of participants were satisfied with the program after participation and 92% in the follow up survey (see Tables 28 & 29 in Appendix 2).

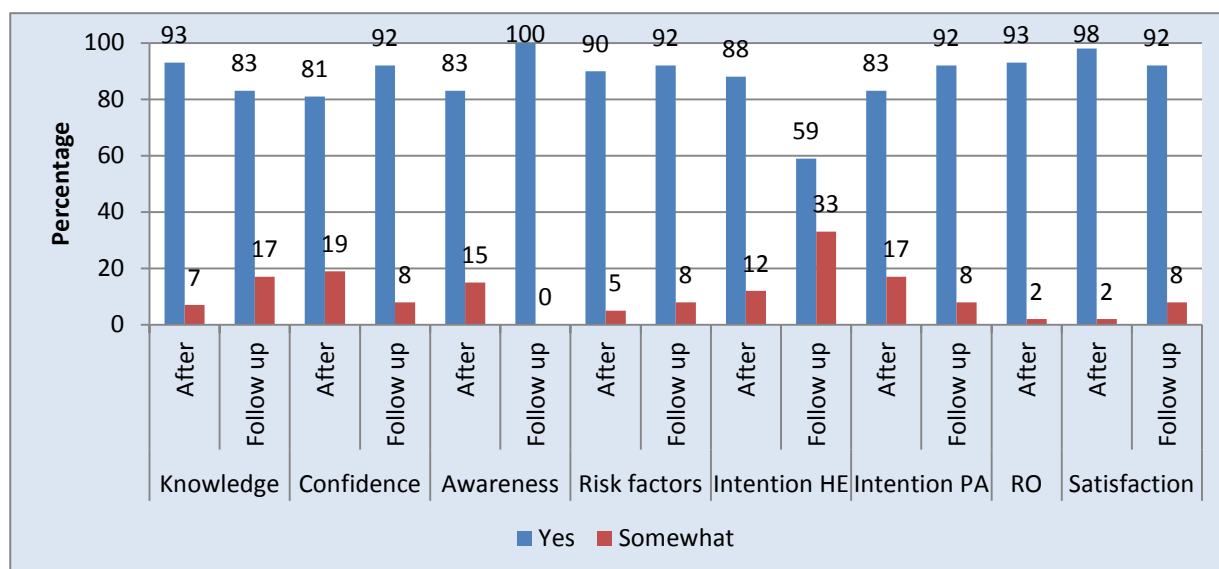


Figure 20: Percentage distribution of participants in the BEAT IT program

Note: HE=healthy eating, PA=physical activity, RO=refer others

7. EAT IT – Healthy Eating Education Program

Demographic information

There were 26 participants in the program with 77% of them female. The highest proportions (65%) of participants were 60 years old or over and 64% were retirees. Of the participants, 35% had a disability and 8% were carers (Figure 21).

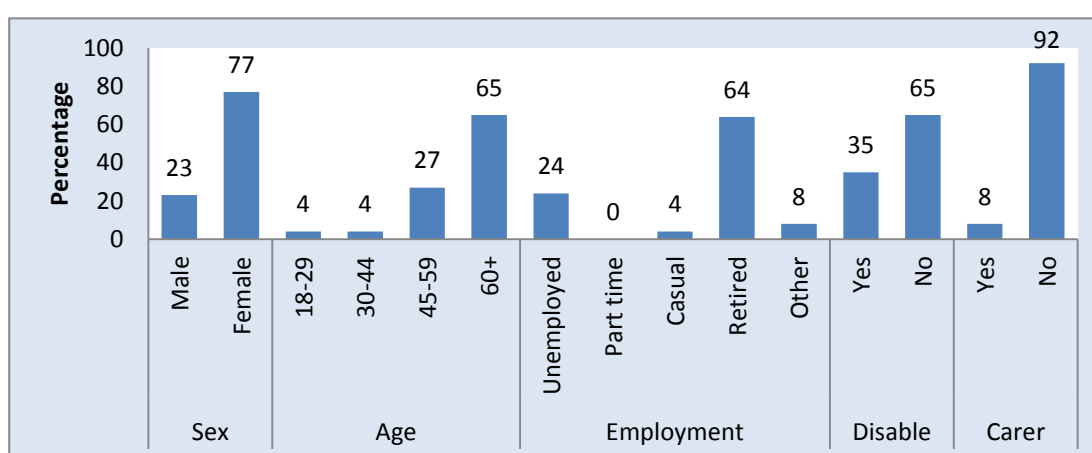


Figure 21: Percentage distribution of participants in the EAT IT program

Eating habit of the participants

Participants were asked to indicate how often they ate certain foods on a six point scale: 1=never, 2=once a week, 3=2 times a week, 4=3 times a week, 5=4 times a week, and 6=5 or more times a week (see Appendix 3). Both before and after the program participants indicated that they prepared and cooked food from basic ingredients approximately four times a week (5.19 before and 5.20 after), ate take-away or “fast foods” approximately once a week (1.81 before and 1.63 after), and ate vegetables, salad or fruit approximately five or more times a week (5.54 before and 5.73 after).

There were some differences in the eating habits of participants between before and after their participation in the program (Figure 22), however, the *t*- test results indicated there were no statistically significant differences in how often participants prepare and cook a meal from basic ingredients (*t*=-.02, *p*=.98), eat take-away (*t*=.83, *p*=.41), or eat fruit, vegetables or salad (*t*=-1.01, *p*=.32) (see Table 30 in Appendix 2).

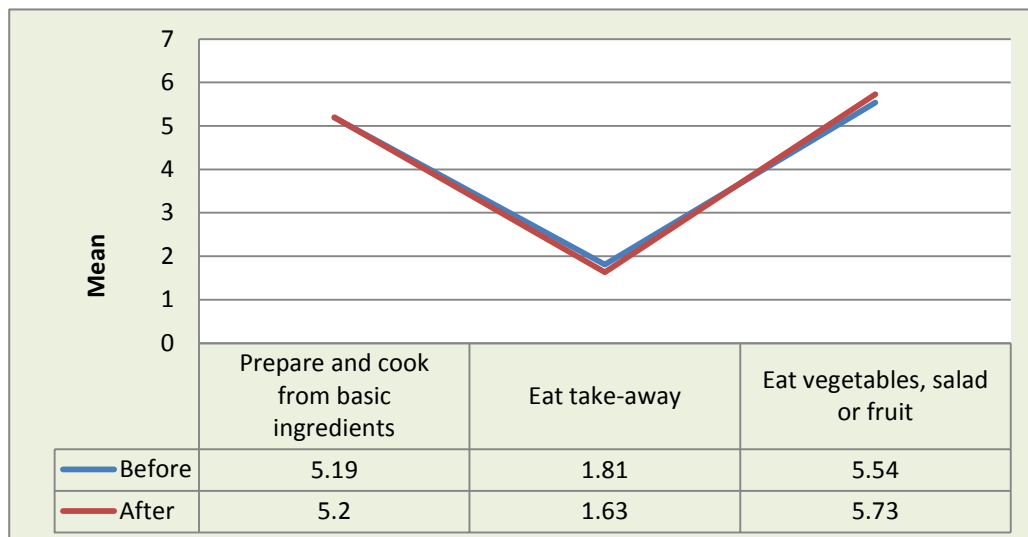


Figure 22: Eating habit of participants in the EAT IT program

Fruit and vegetables consumption

Participants were asked to indicate their fruit and vegetable consumption per day on a ten point scale: 1=very low and, 10 =very high. Before the program the mean fruit and vegetable consumption of participants were 2.23 and 3.35 respectively, and after the program were 2.52 and 4.55 respectively. Data shown in Figure 23 indicate that there were significant changes in vegetable consumption among the participants between before and after participation in the program (*t*=-3.35, *p*=.01). However, there were insignificant changes in fruit consumption (*t*=-.95, *p*=.35).

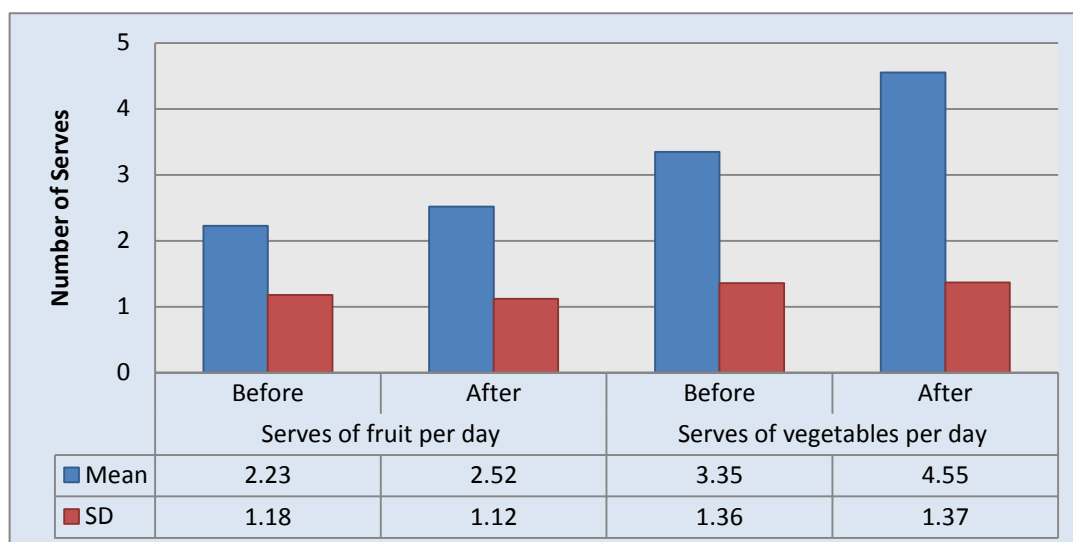


Figure 23: Fruit & vegetable consumption of participants in the EAT IT program

Health status

Participants were asked to rate their health and fitness on a five point scale: 1=excellent, 2=very good, 3=good, 4=fair and 5=poor. The mean ratings indicated that before the program, participants' health was good (3.19) and after it was very good (2.42), and their level of fitness before participating in the program was good (3.31) and after it was also good (2.66). There was a significant improvement in the overall health status ($t=4.33$, $p=.01$) and fitness level ($t=3.33$, $p=.01$) of the participants (Figure 24).

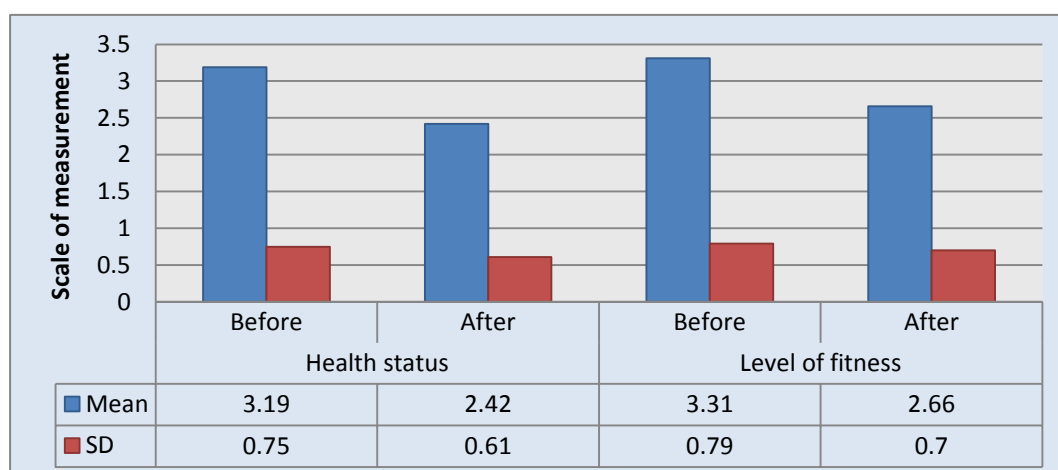


Figure 24: Health condition of participants in the EAT IT program

Confidence in maintaining healthy lifestyle

Participants were asked whether this program had increased their confidence in maintaining a healthy lifestyle on a five point scale: 1=not at all, 2=a little bit, 3=moderately, 4=quite a bit, 5=extremely. The mean ratings of participants ranged from 3.81 to 4.23, indicating participants felt their confidence level had increased quite a bit about shopping, budgeting, buying, choosing and planning healthy food for themselves, as well as for their families (Figure 25) (see Table 31 in Appendix 2).

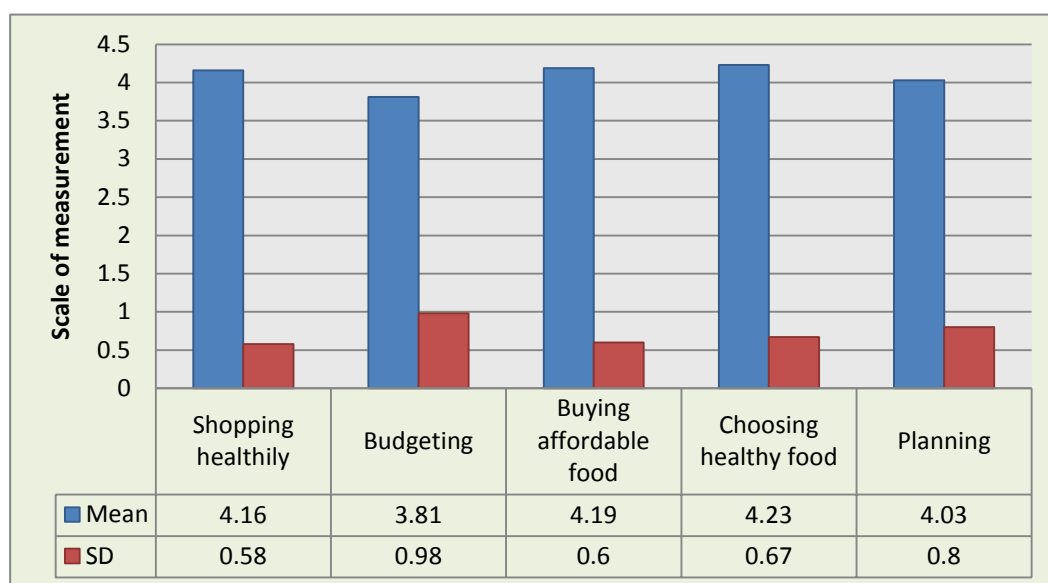


Figure 25: Confidence level in maintaining healthy lifestyle

Changes in behaviour

The participants were asked to respond to behavioural related statements on a four point scale-yes, somewhat, no, and unsure. Over 90% of the participants indicated that this program had increased their knowledge, skills and awareness of healthy eating and they were intending to change their lifestyle, and would like to refer the program to others (Figure 26). Overall, they were all satisfied (100%) with the program (see Table 32 in Appendix 2).

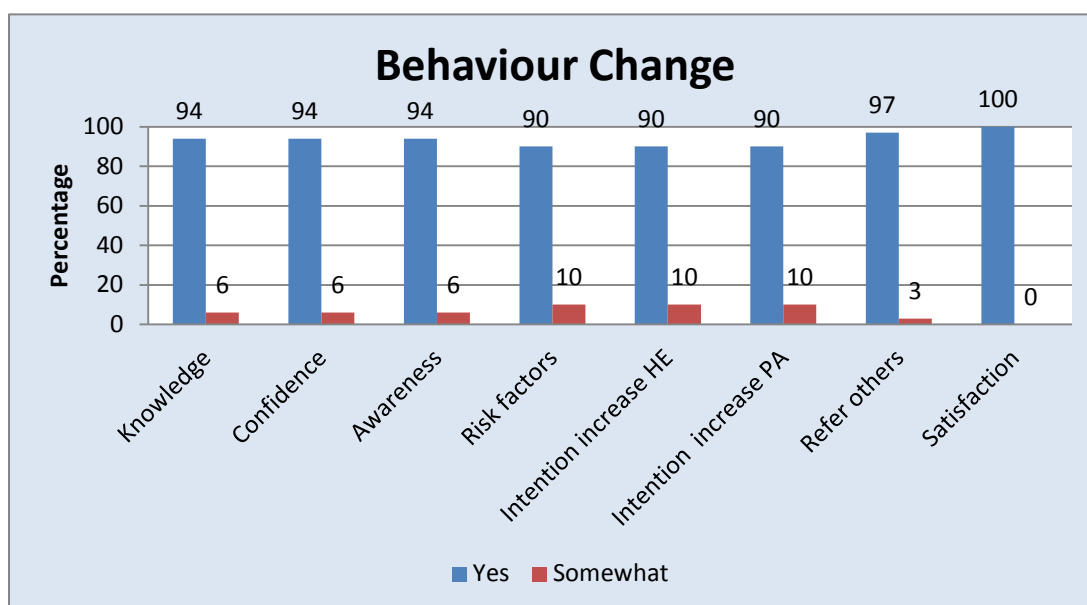


Figure 26: Percentage distribution of participants' based on their behaviour changes

Note: HE=healthy eating, PA=physical activity

8. Healthy Eating and Active Lifestyle (HEAL) Program

Demographic profile

Twenty-five people participated in this program, and of them only one was male. More than half (56%) of the participants were 60 years of age or over and retirees, compared to 36% who were in the 45-59 years of age group. Only 16% of participants were disabled with no carers in the program (Figure 27).

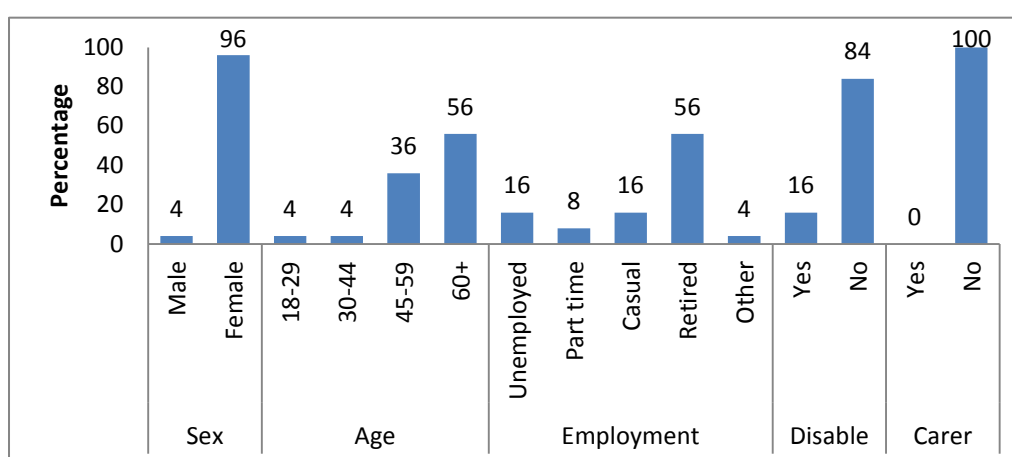


Figure 27: Percentage distribution of the participants in the HEAL program

Reasons for exercise

Data in Table 12 indicate that there was a statistically significant difference in responses to the reasons for exercise between the before, after, and follow up data regarding fitness ($\chi^2=7.00$, $p=.03$) and recreation ($\chi^2=9.82$, $p=.01$). This indicates that following completion of the program, all participants were exercising for fitness and recreation.

Table 12: Percentages of distribution of participants in different exercises

Reasons for exercise		Time			Chi-Square	Sig.
		Before (n=25)	After (n=23)	Follow up (n=13)		
Fitness	Yes	71	94	100	7.00	.03
	No	29	6	0		
Recreation	Yes	50	71	100	9.82	.01
	No	50	29	0		
Transport	Yes	41	40	31	.39	.82
	No	59	60	69		

Amount of exercise

The mean ratings indicated that there were insignificant differences in the amount of exercise between before and after participation, and follow up to participation in the HEAL program (Table 13).

Table 13: Amount of exercise of the participants in the HEAL program

Exercise in each week	Time	Mean*	F value	Sig.
30 minutes	Before	4.69	1.48	.24
	After	3.93		
	Follow up	3.50		
60 minutes	Before	3.63	.09	.91
	After	3.30		
	Follow up	3.40		
≥150 minutes	Before	4.43	2.93	.08
	After	2.17		
	Follow up	3.83		

*Means were calculated using a six point scale: 1=never, 2=once a week, 3=2 times a week, 4=3 times a week, 5=4 times a week, 6=5 or more times a week

Healthy eating habit of the participants

Data in Table 14 shows that there was a significant difference in the participants' responses to eating takeaway food between before participating in the program and after, and the follow up to the program ($F=4.21$, $p=.02$). Further analysis (using the Tukey test) indicated that there was a significant difference in eating take-away food between before and follow up participation in the program ($p=.02$). However, the difference between before and after

participation ($p=.95$) and after participation and the follow up ($p=.06$) were insignificant (see Table 33 in Appendix 2). These differences indicate that the participants are eating less takeaway or fast food and there is a need to improve the habit of preparing and cooking food from basic ingredients, eating more vegetable and fruits to maintain a healthy life.

Table 14: Eating habit of the participants

Eating habit	Time	Mean*	SD	F value	Sig
In a normal week, how often do you prepare and cook a meal from basic ingredients?	Before	5.60	.91	1.29	.28
	After	5.41	1.06		
	Follow up	5.92	.28		
How often, on average, do you eat take-away or “fast foods” (e.g., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?	Before	1.68	.56	4.21	.02
	After	1.63	.61		
	Follow up	1.15	.38		
How often do you eat vegetables or salad? (fresh, frozen or tinned)?	Before	5.44	1.08	2.88	.07
	After	5.94	.24		
	Follow up	5.92	.28		
How often do you eat fruit (fresh, frozen, tinned or dried)?	Before	5.27	1.12	1.73	.19
	After	5.82	.52		
	Follow up	5.69	1.11		

*Means were calculated using a six point scale: 1= never, 2=once a week, 3=2 times a week, 4=3 times a week, 5=4 times a week, and 6=5 or more times a week.

Health status

The participants were asked to rate their health status on a five point scale: 1=excellent, 2=very good, 3=good, 4=fair and 5=poor (see Appendix 3). The mean ratings of the overall health and fitness of participants between before and after participation and follow up to participation (Figure 28) indicated that there were insignificant differences in the overall health status ($F=.58$, $p=.56$) and level of fitness ($F=2.07$, $p=.14$) of participants (see Table 34 in Appendix 2). Although there were no significant improvements in the overall health or level of fitness of participants between the three time periods, the level of fitness scored comparatively better than the overall health of the participants.

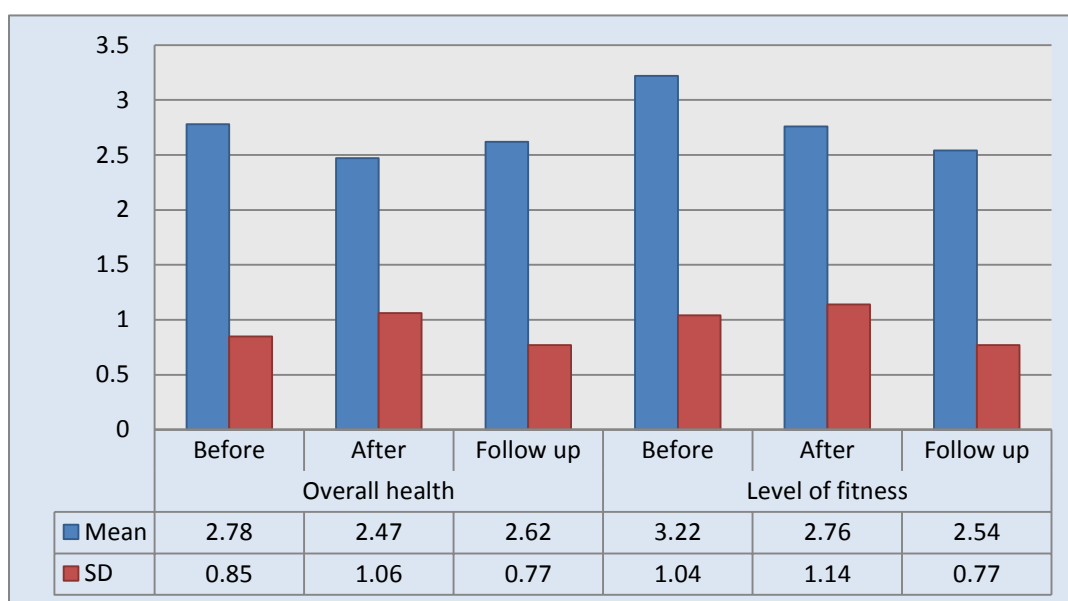


Figure 28: Health condition of participants in the HEAL program

Confidence in maintaining healthy lifestyle

Participants were asked to indicate the extent to which the program had increased their confidence in maintaining a healthy lifestyle on a five point scale: 1=not at all, 2=a little bit, 3=moderately, 4=quite a bit, 5=extremely. The mean ratings in shopping, budgeting, buying, choosing and planning easy meals for a healthy lifestyle ranged from 3.36 to 3.86 after the program and 3.33 to 3.77 in the follow up (Figure 29). There were insignificant increases in participants' confidence in shopping for healthy food ($t=.21$, $p=.84$), budgeting ($t=.73$, $p=.48$), buying affordable food ($t=-.36$, $p=.72$), choosing healthy food ($t=-.29$, $p=.77$), and planning healthy meals ($t=-.49$, $p=.63$). This indicates that while these increases were not significant, the participants felt the program had increased their confidence from a moderate to a slightly higher level in these areas (see Table 35 in Appendix 2).

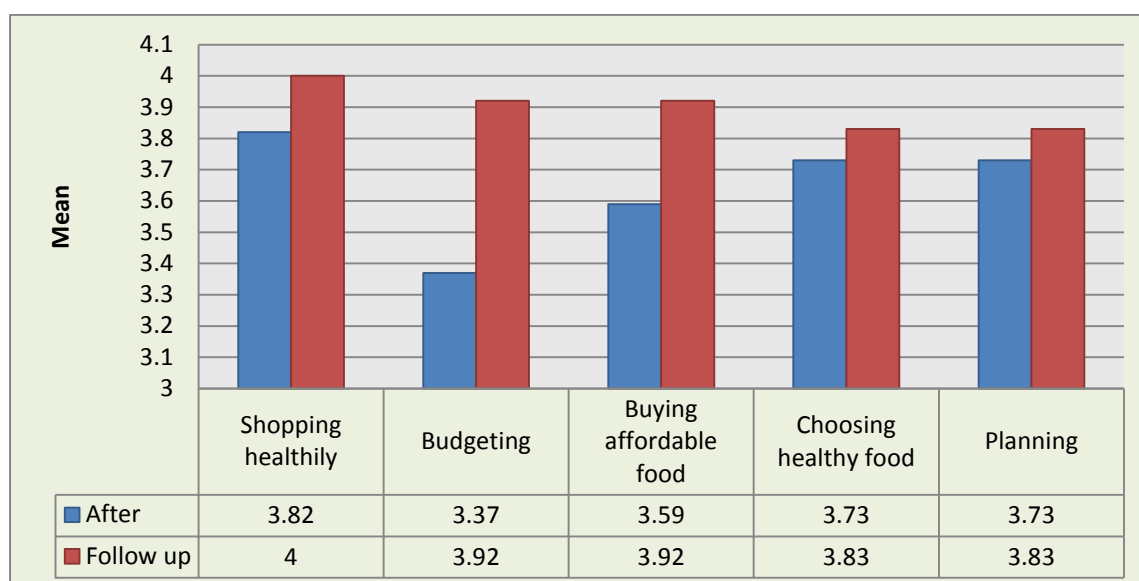


Figure 29: Increase in confidence of participants in the HEAL program

Changes in behaviour

The participants were asked to respond to a number of statements related to changes in their behaviour as a result of the HEAL program (Figure 30). The majority (85%) of participants indicated that the program had improved their knowledge of healthy eating and sustained this behaviour even over six months of the program.

The confidence level of the participants in making healthy lifestyles choices decreased from 93% to 83% in the follow up. All the participants understood the risk factors associated with poor diet and intended to sign on for other programs. Similarly after the program, 79% of the participants said they intended to change their lifestyle to include healthy eating and physical activity; however it decreased to 69% in the follow up survey. Overall, 93% of the participants were satisfied with program, (92%) remained stable even after six month of the program, and 93% were willing to refer others to the program (see Tables 36 & 37 in Appendix 2).

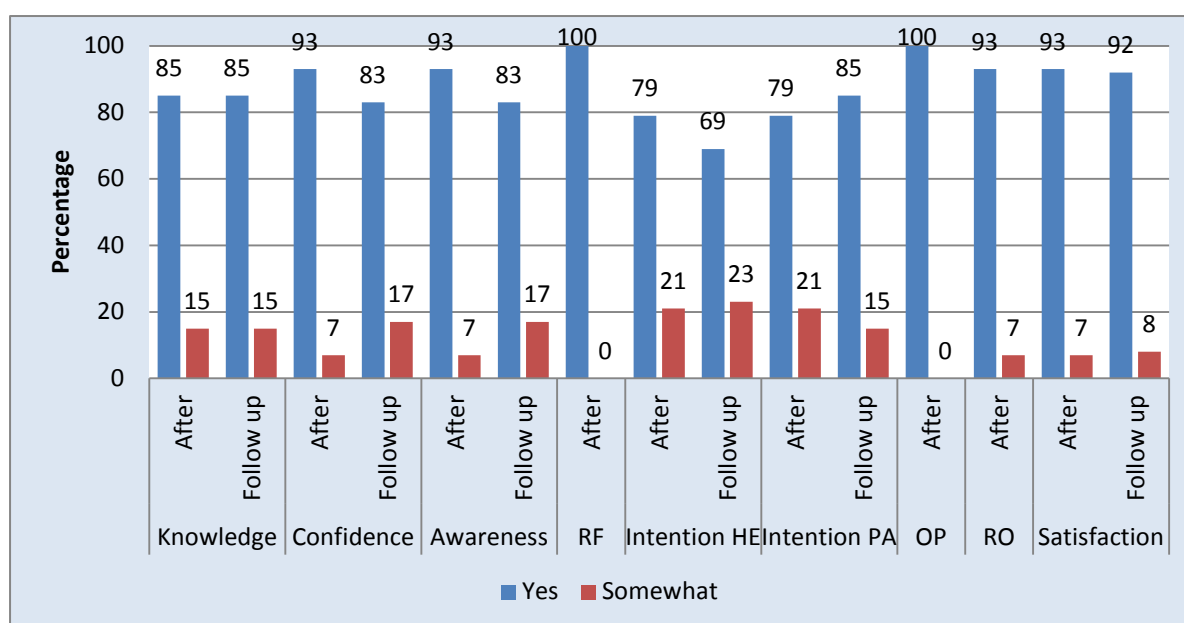


Figure 30: Percentage distribution of participants in the HEAL program

Note: RF=risk factors, HE=healthy eating, PA=physical activity, OP=other programs, RO=refer others

Qualitative data: Feedback on Healthy Lifestyle programs

The common themes that emerged were that the programs had increased awareness of the benefits of a healthy lifestyle and motivated participants to make changes in their lifestyle. Participants were very satisfied with the programs and were feeling fitter and healthier after the programs (Table 15).

Table 15: Participants' feedback on healthy lifestyle programs

	Comments	Number
Changes in knowledge	Increased awareness of health issues	2
	Understand the benefit of exercise	1
	Understand impact of balance diet	1
	Program promoted health fitness and good lifestyle choices	1
Changes in behaviour	Motivated me to increase amount of exercise	3
	Increased fitness and health	2
	See my success	1
Usefulness of program	Exercise easy and beneficial	1
	Diet plan very helpful	1
Confidence	Lot fitter	1
Satisfaction/enjoyment	Excellent program and facilitator	6
	Please continue the program	2
	Program was very professionally run	1
	Go out and join a program	1
Suggestions	More exercise in the pool	1
	Advertise in the local paper	1

Health Promotion Program

Two different health promotion activities-Jamie's Ministry of Food and a Diabetes Awareness seminar- were organised in the community. Jamie's Ministry of Food had the most participants (n=45), compared to the Diabetes Awareness seminar (n=33). Within the health promotion programs, 81% were female and almost half (44%) were over 60 and retired. Of the participants, 18% had disabilities and 10% were carers.

9. Jamie's Ministry of Food

Demographic Profile

Of the participants, 82% were female, more than two-fifths (42%) were aged 45-59 and 30% of the participants were unemployed. Also, 20% of the participants had a disability and 9% of them were carers (Figure 31).

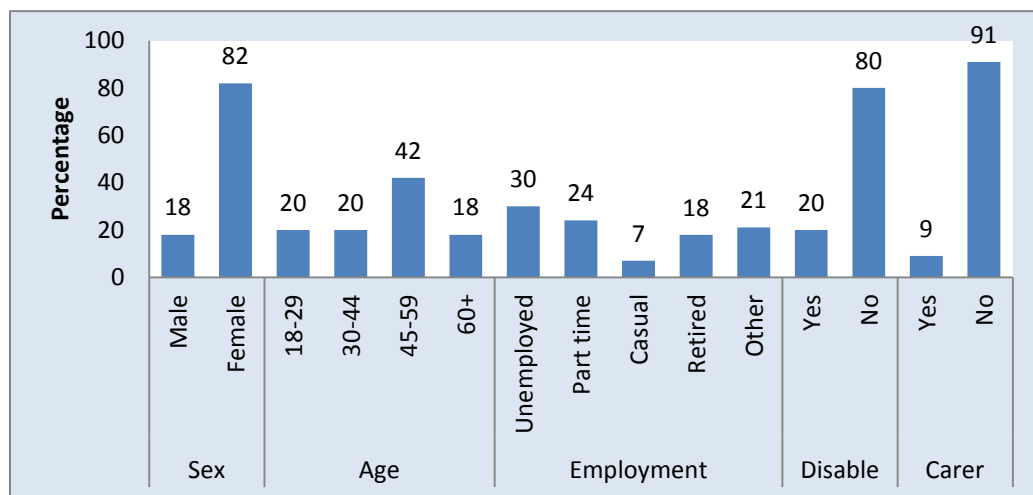


Figure 31: Demographic profile of participants in Jamie's Ministry of Food

Changes in knowledge

Figure 32 shows that almost half (49%) of the participants indicated that the program had increased their awareness about healthy lifestyle activities as compared to 31% were somewhat, and 20% not at all. Almost three-fifths (58%) of the participants indicated that the program had increased their knowledge about the benefit of healthy eating, whereas 56% indicated that it had helped increase their healthy eating and physical activity.

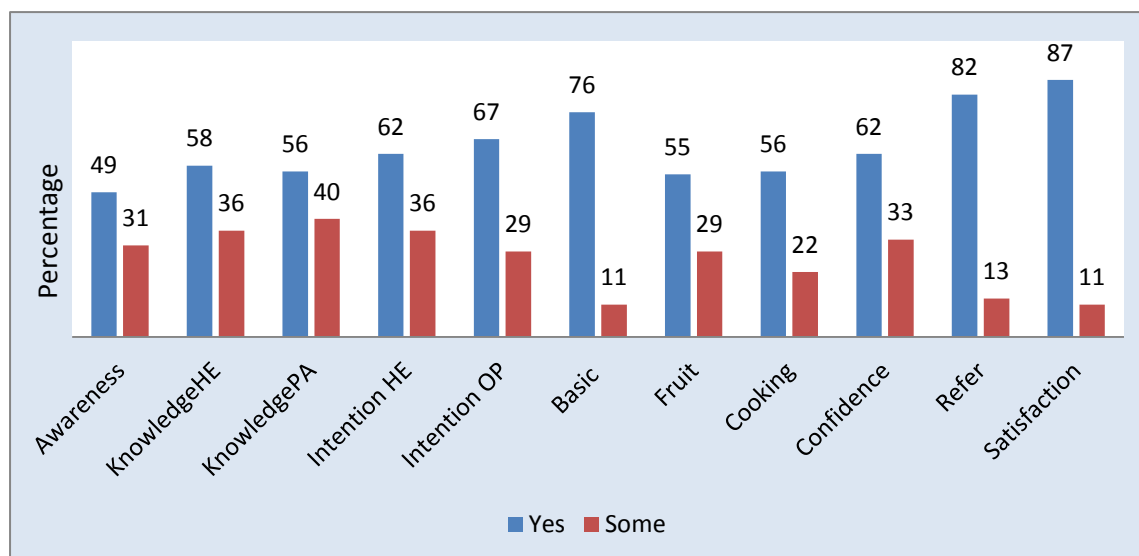


Figure 32: Percentage distribution of participants in Jamie's Ministry of Food

Note: HE=healthy eating, PA=physical activity, OP=other programs

Intention to change

More than two-thirds (67%) of the participants had intended to change their lifestyle; 76% indicated that the program assisted them to increase their cooking skills, and more than half (55%) of them said that the program resulted in them consuming more vegetables and fruits. (Figure 32)

Satisfaction

The majority of the participants (87%) were satisfied with the program and 82% would refer others to attend the program (see Table 38 in Appendix 2).

Usefulness of Jamie's Ministry of Food program

Before the program started, more than two-fifths (45%) of the participants rated the Jamie's Ministry of Food as either very good or excellent, and more than three-fifths (62%) rated the same after the session (Figure 33). The responses indicate that the program has positive value to participants.

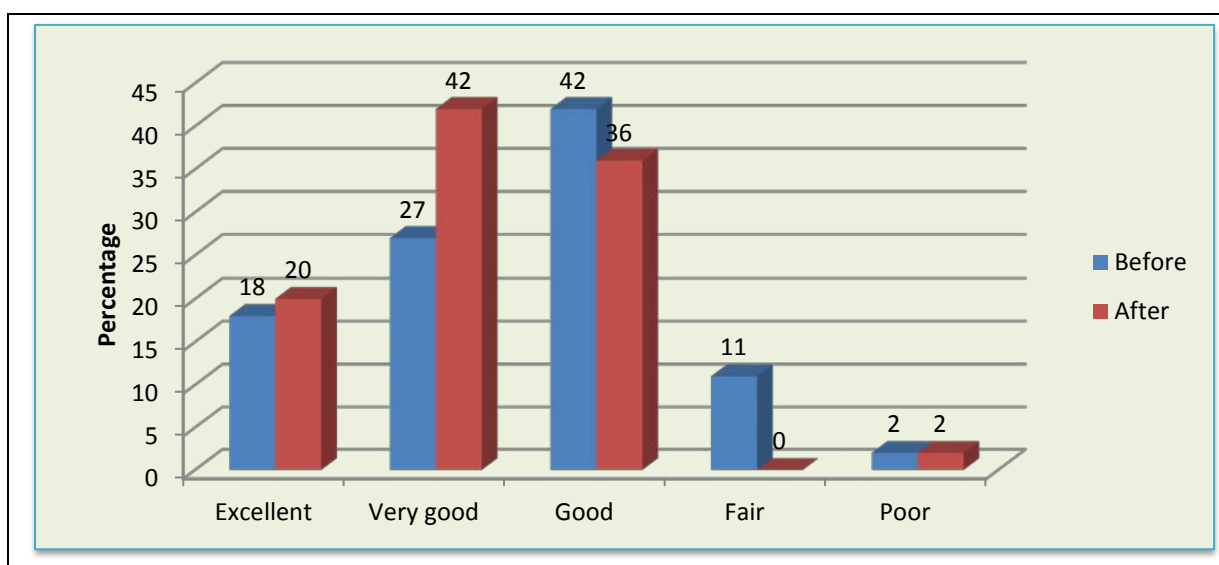


Figure 33: Usefulness of Jamie's Ministry of Food program

10. Diabetes Awareness Seminar

Demographic profile

This activity was targeted to adults with a disability and their carers, recently or long-term unemployed and older Australians, or those at risk of developing diabetes or other chronic diseases. The total number of participants in the program was 34; 79% were females and 21% males (Figure 34). Most participants (79%) were over 60 years of age and retired. Of the five disabled participants, two were males aged 60 years or over and three were females aged 45 years or over. Four carers participated in the Diabetes Awareness program; of them one was male and three were female retirees.

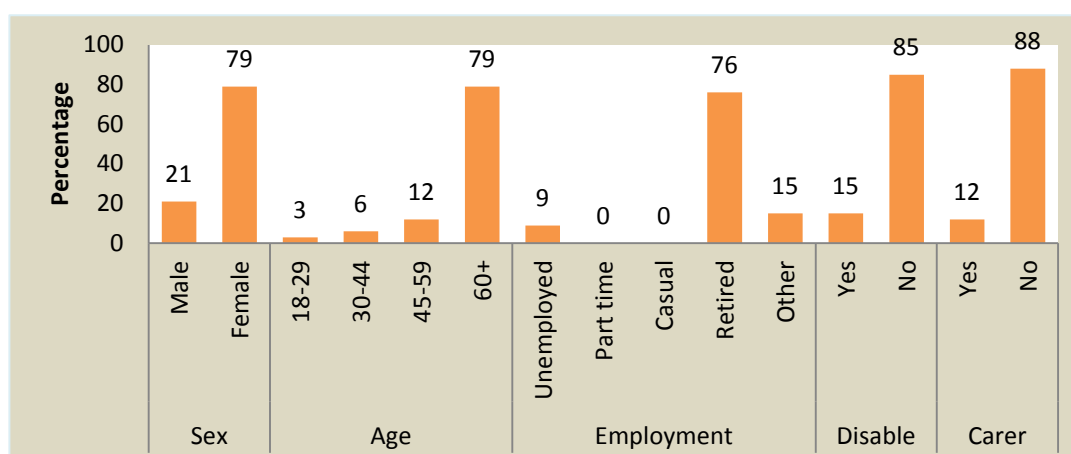


Figure 34: Percentage distribution of participants in Diabetes Awareness seminar

Changes in behaviour

Data in Figure 35 shows that 91% of the participants indicated this program had increased their awareness of healthy lifestyles and 72% intended to change their behaviour to be more physically active. More than three-quarters (77%) stated that they would eat healthier foods such as fruits and vegetables and 74% also expressed their willingness to participate in other activities of the Live Life Healthy program.

More than four-fifths (83%) of the participants stated that the program changed their level of knowledge about the benefits of healthy eating and exercise, and 86% indicated that it increased their awareness of risk factors associated with poor diet and/or low levels of physical activity. Ninety percent of participants were satisfied with the program and 84% would refer others in the community to participate in the program (see Table 39 in Appendix 2).

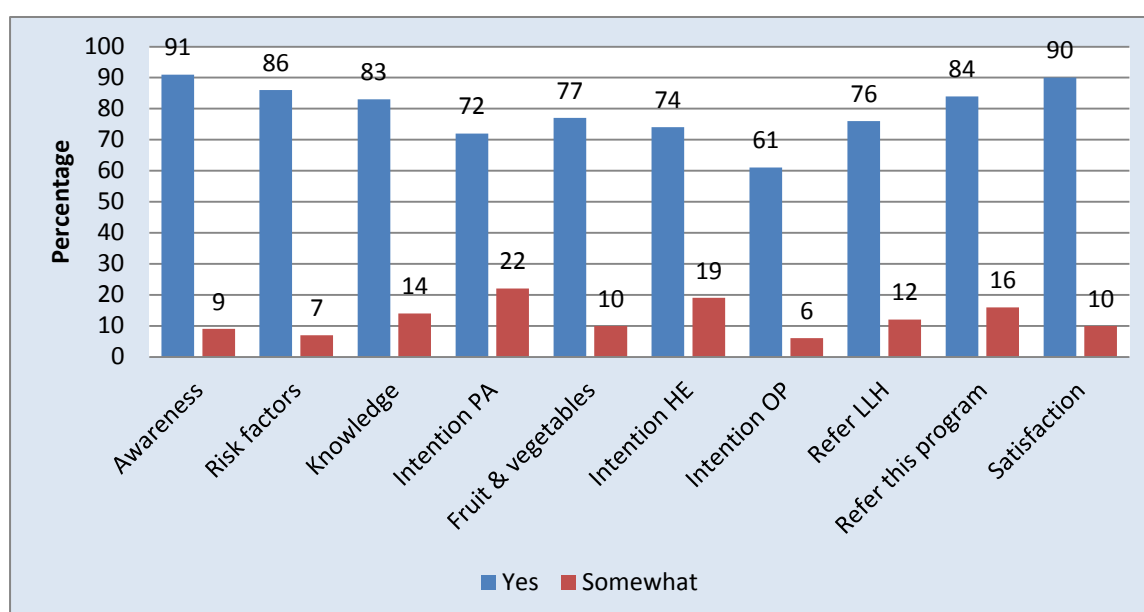


Figure 35: Percentage distribution of participants in Diabetes Awareness seminar

Note: PA=physical activity, HE=healthy eating, OP=other programs, LLH=live life healthy programs

Qualitative data: Feedbacks of the participants on health promotion programs

The feedback of the participants were organised thematically as shown in Table 16. The participants commented that this program had changed their knowledge, increased their confidence, and they would like to refer this program to other community members. Overall this program was interesting and food for thought.

Table 16: Comments of the participants

	Comments	Number
Changes in knowledge	Very informative	3
	Valuable experience and has increased/enhanced my knowledge about healthy cooking	3
	I would do it again if it came back	2
	Enrich my awareness about diabetes	2
	Made me more aware of diabetes	2
	Made me more aware of the danger of diabetes and knowledge of where to get help	1
	It is benefitted me about the awareness and could prevent diabetes	1
	Becoming more aware of the right eating and required increasing physical activities	1
	I had a really good experience. It was well organised and very generous.	1
	This was an amazing experience. Even though I already knew a lot about eating healthy and how to look. It was really fun class. I would do it over and over again	1
	The Ministry of food vans are totally amazing and the staffs (volunteers) are the BEST. Wish I did it years ago. It's excellent.	1
	This was excellent program. There were lots of great hints and I tried a few new foods that I have not known how to cook previously. Good Guy voucher is a great bonus	1
Confidence	I really hope the Ministry of Food program has a very long life and reaches as many people as possible. It was brilliant and has given me confidence (which was a really big ask in my case) and a happy keenness to cook healthy, tasty meals at home. Bless you all and keep up the great work!	1
	I really loved the Jamie's' Ministry. Well run, organised, lovely meals. I am confident to cook them again. I have bought three new Jamie's cook books. I love cooking, but have learnt some extra skills and ideas. I was amazed with the truck and staff. Excellent.	1
Intention to change	I think cooking classes are a fantastic idea. Hope to see more of these in the future. Hope it will change the way we eat instead of going too fast food 'option'. Love the very happy, positive cooking instructions.	1
	I thoroughly enjoyed and would follow the way the chef was cooking	2
	Learnt more healthy choices when cooking and wish to attend any courses on cooking	2
	I would love to take more cooking classes as I feel I know what I am doing when cooking	1
	I was glad I participated in this event and would consider other opportunities	1
Suggestions	This program should be aimed strictly at the unemployed and single mothers. Please take this into consideration when planning things of this nature again.	1
Others	Interesting, food for thought	1

Benefit of the LLH program

The key benefits of the programs were a greater awareness of a healthy lifestyle and different types of exercise available, and motivation to improve lifestyle behaviours and lose weight. Participants also enjoyed the social aspects of the programs and felt stronger, more flexible, and had more energy after the programs (Table 17).

Table 17: Benefits of Live Life Healthy Program

Themes	Benefits of Live Life Healthy Program	Number
Awareness	Learnt different techniques of exercises that will help to fit well	3
	Taught me so far about my health	2
	Aware about more healthier and fitter lifestyle	1
	Introducing what Pilates is	1
	The program has made me aware that there are other projects that are available to persons over 60 years and I intend to join those programs	1
Motivation to change lifestyle	A wonderful motivator so to improve life and manage obesity	4
	A wonderful motivation to lose weight to gain strength	3
	Great, motivated me to participate in exercise and kept me fit	2
	Encourages to exercise at own level	1
	My overall health & fitness has improved and motivated to exercise regularly	1
Changes in behaviour	Activity levels have improved and lost weight	8
	Increased activities, to lighten mobility and strengthen muscles and generate wellbeing, weight loss, friendship formed	4
	Just getting out and fitter after pregnancy	1
	Added exercise sessions in my busy lifestyle	1
	The activities helped me get more fit, drop dress size; make me feel more alive	1
Usefulness of programs	Help keeping me with ways that I can still exercise, fit well, make friendship with others and develop social network and interaction	9
	Extra energy and fitness and flexibility	7
	Feel more encouraged, easy to handle, feel stronger in my limbs	5
	Fitter and stronger and more aware of my body and what needs to strengthen	5
	My joint are more flexible, activity levels have improved, enjoy group participation	3
	Allowed me to exercise in a group setting when I could otherwise not	2
	Getting me into other forms of exercise and involved with other people	2
	Increase flexibility, Increased energy	2
	increased flexibility, increased endurance, increased energy	2
	It gave me a chance to try different activities	2
	More outgoing, more energy, a recall of social group of people, great fun	2
	My physical movement and range of endeavour are all being increased. I think it is very beneficial to my health and wellbeing	2
	My strength has increased since commencing; awareness of benefit of exercise	2
	Exercise variety, social involvement, outdoor activity	1
	Team work and fun and knowing I can do it.	1

DISCUSSION

Profile of the participants

A wide range of people in the community participated in the Live Life Healthy (LLH) program. The program offered physical activities (AustCycle, live cycling for women, community walk, community exercise, aquatic exercise), healthy lifestyle programs (BEAT IT, EAT IT, HEAL), and health promotion (Jamie's Ministry of Food, Diabetes Awareness seminar). There were 821 participants total; 640 in physical activity programs, 103 in healthy lifestyle programs, and 78 in health promotion programs. Of the participants, 88% were female and almost half of them (48%) were over 60 years of age and retired (47%). Only a small proportion of participants had a disability (18 %) (Figure 36) and were carers (9%). Most of the participants become aware of the LLH program through newspaper articles, radio/TV and community groups.



Figure 36: Disable participant in LLH program

The common theme that emerged from both qualitative and quantitative data of the LLH program is that people are now more aware of how to achieve a healthy lifestyle. They now appear to better understand the benefits of participating in physical activity as well as the importance of eating healthy food. The main outcomes of the program are discussed under three main headings: physical activity, healthy lifestyle and health promotion.



Figure 37: Participants in the LLH Program

Physical Activity

Changes in knowledge

The participants in live cycling, community walk, community exercise and aquatic exercise activities indicated that the programs had increased their level of knowledge and awareness about a healthy lifestyle to some extent. Participants in the AustCycling program were not asked to indicate changes in awareness, however, all participants in this program acknowledged that they learnt new skills and improved their cycling as a result of the program. The highest proportion (91%) of participants in the community walk stated that this program had increased their awareness of maintaining a healthy lifestyle, compared to 86% in community exercise, 83% in aquatic exercise and 72% in live cycling. Follow up data in the community walk program indicated that three-fourths (75%) of the participants felt that the



Figure 38: Participants in the community walk program

program had increased their knowledge and awareness. It appears from the findings that participants are now aware of healthy lifestyles and forms of exercise they need to keep them healthy. Research found that physical activity confers a positive benefit on health and reduces the risks of ill health⁴⁹. The findings from physical activities of the LLH program informed the benefits of maintaining good health. The follow up data should be collected from the community exercise, live cycling, aquatic exercise and AustCycling programs to better understand the impact of this program on the participants' level of knowledge in maintaining their good health.

Changes in behaviour

Intention to participate in physical activity: The highest proportion (92%) of participants in the live cycling program indicated their intention to include physical activity in their lifestyle, followed by community exercise program (89%), aquatic exercise program (87%), AustCycle (75%), and the community walk program (72%). Follow up data was only collected for the community walk and this data indicated the participants would continue to participate in

physical exercise. Lack of physical activity is reported to account for 6.6% of the burden of disease and is the fourth highest after tobacco, high blood pressure and obesity^{82,83}. It appears from the findings that most participants had indicated their intention to change their lifestyle through increasing the amount of physical activity in their daily lives.

Intention to sign on for other programs: Majority of the participants in community walk (82%), community exercise (77%), live cycling (76%), and aquatic exercise (73%) activities indicated their intention to sign on for other programs offered through the Live Life Health program. Only 11 people participated in the AustCycling program in different timeframes, and limited data was collected on their intention to sign on for other programs, however, the expression of interest of participants in other programs indicates that the LLH program had been a beneficial experience.

Improvement in health condition: There were significant improvements in exercise using live cycling for fitness (chi-square = 24.45, $p=.01$), recreation (chi-square=25.39, $p=.01$), and transport (chi-square=10.26, $p=.01$). The odd ratio indicated that the participants were 19% more likely to continue cycling for fitness, 29% for recreation, and 15% for transport. After completion of the live cycling program, 88% of participants stated that their fitness was either good or very good. The qualitative data also confirms that exercise is good for those with disabilities, helped increase health fitness, assisted to lose weight, motivated to improve lifestyle, and manage diabetes.



Figure 39: Participants in the live cycling program

Satisfaction in physical activity: All participants in the AustCycle and live cycling programs, 99% in community exercise, 93% in community walk, and 90% in aquatic exercise indicated they were satisfied with the program. The qualitative data also revealed that this program has increased physical strength of the participants, helped them to make new friends, have fun, and lead a healthier life.



Figure 40: Participants in the aquatic exercise program

Refer others: All the participants in the live cycling program indicated they would refer the program to others, compared to 96% in aquatic exercise program, 93% in community walk program and 93% in community exercise program. This suggests that most of the participants felt the programs would be of benefit to others, and they would like to see them continue in the future.

Confidence in physical activity

The participants in the AustCycling and live cycling programs rated their confidence level on a six point scale. After participation in the AustCycling and live cycling programs, the mean ratings of the participants were 5 and 4.92 respectively. These ratings indicated that the participants had quite a high level of confidence in cycling and demonstrated the beneficial effects of the program. The participants also felt that this physical activity program of the LLH program left them feeling safer and fitter.

Concluding comments

The live cycling program had the major changes in behavior in three areas-inclusion of physical activity, willingness to refer program to others, and overall satisfaction- while the community walk program which had the largest change in awareness of healthy lifestyle activities and willingness to sign on for other programs.

The aquatic exercise program attracted a significantly larger number of participants than the other programs, which may be due to participants being more interested in trying a form of exercise they had not previously experienced. As this program also had quite a high level of behavioural change, it can be considered to be very successful. In comparison the AustCycle

and live cycling programs had much smaller numbers of participants; however these programs had high levels of behavioral change.

Overall the findings reveal that physical activity programs-especially the community walk, aquatic exercise and live cycling programs-have been successful in increasing participants' knowledge and confidence to maintain a healthy lifestyle, and motivating them to change their behavior to continue such a lifestyle. However, the follow up data required to collect from all the programs to generalize the benefits of the program precisely.

Healthy Lifestyle- Healthy Eating

Changes in knowledge

Knowledge in healthy eating and lifestyle: In general, most of participants in the healthy lifestyle program felt participation in the program had increased their knowledge of healthy eating and leading an active lifestyle. The highest proportion (94%) of participants in the EAT IT program felt that they had increased their knowledge in healthy eating and maintaining an active lifestyle; however, there was no follow up survey data to confirm this increase in knowledge. Immediately after the BEAT IT program, 93% of participants indicated an increase in knowledge in healthy eating, however this dropped to 83% in the follow up survey. The highest proportion (85%) of participants in the HEAL program felt that they had increased their knowledge in healthy eating both immediately after the program and in the follow up. The findings confirm that this program was beneficial to the participants in maintaining a healthy lifestyle. This increase in knowledge can be seen as a positive change as poor nutrition and a sedentary lifestyle contribute to the 7.4 million overweight Australian adults with over a third of those being obese⁸². The participants further commented that this program assisted them to lose weight and increased endurance.

Knowledge in health condition: The health status and fitness level of the participants were measured on a five point scale: 1=excellent, 2=very good, 3=good, 4=fair and 5=poor. The mean ratings indicated that there are significant changes in the health status of participants between before (2.93), after (2.5) and the follow up (2.00) in the BEAT IT program and between before (3.19)and after (2.42) in the EAT IT program. This result indicates that the overall health of participants in both of these programs improved significantly following their participation in the programs. This demonstrates that the programs have benefits for participants (see Table 40 in Appendix 2). However, the participants in the HEAL program showed almost invariable conditions in their health (2.78 before, 2.47 after and 2.62 in the follow up).

There were significant changes in the level of fitness of participants between before, after and follow up of all the programs. The mean ratings indicated the level of fitness of participants in these programs improved from good to very good following their participation in healthy lifestyle programs (see Table 41 in Appendix 2). The participants also mentioned that this program promoted their health fitness and a good lifestyle. Pollard, Lewis, Woods, & et al⁸⁴ stated that fitness and active living contributed to social and emotional wellbeing, and enhanced quality of life, overall health and weight control. Both chronic diseases (arthritis and depression) that impart the greatest workplace loss of time can be positively supported by an active lifestyle^{85,86} and this program has supported these views.

Awareness of healthy lifestyles: The EAT IT program had the highest proportion (94%) of participants who felt that the program had increased their awareness about a healthy lifestyle, followed by the HEAL program (93%) and the BEAT IT program (83%). These proportions remained constant in the follow up of the BEAT IT and HEAL programs. Most of the participants in the healthy lifestyle program are retirees, over 60 years of age and unemployed. These conditions possibly lead them to be interested in increasing their awareness of activities to maintain a healthy lifestyle as they age, as well as the amount of time they have, compared to those that are employed and younger in age.

Further, there were significant improvements between before, after and the follow up in the proportion of participants exercising for fitness in the BEAT IT ($\chi^2=7.99$, $p=.02$) and HEAL ($\chi^2=7.00$, $p=.03$) programs and for recreation in the HEAL program ($\chi^2=9.82$, $p=.01$). There were also significant improvements in the amount of 30 minute ($F=3.33$, $p=.05$) and 60 minute ($F=6.71$, $p=.01$) exercise engaged in by participants in the BEAT IT program. These results show that participants recognise the importance of physical activity and the programs have assisted them in making positive changes regarding physical activity in their lifestyles. The high level of awareness and increase in physical activity in the healthy lifestyle programs is a positive result as data show that physical activity confers a positive benefit on health and reduces risks of ill health⁸⁷.

Awareness of risk factors related to healthy lifestyle: Most of the participants in the HEAL (100%), BEAT IT (90%) and EAT IT (90%) programs indicated that they had increased their awareness of risk factors associated with poor diet and/or low levels of physical activity. This awareness of the participants is a positive result as unhealthy diets and inactivity are risk factors for obesity, but also underpin other adverse outcomes in relation to both physical health and wellbeing⁸⁸. This program has, therefore, been beneficial in increasing awareness of unhealthy diets and low levels of activity, and poor physical health and wellbeing.

Changes in behaviour

Healthy eating: Ninety percent of participants in the EAT IT, 88% in the BEAT IT and 79% in the HEAL programs indicated that they intended to change their lifestyle to include healthy

eating habits such as preparing and cooking meals from basic ingredients, eating less take-away or “fast foods”, and eating more vegetables, salad and fruit (fresh, frozen, tinned or dried).

However, 69% of participants in the HEAL and 59% in the BEAT IT programs had sustained this behaviour over six months following the program. This indicates that while participants realised the need to include healthy eating to maintain a healthy lifestyle, implementing healthy eating in reality was often more difficult. In the EAT IT program, fruit and vegetable consumption was investigated and there were significant increases in vegetable consumption, however the increases in fruit consumption were insignificant. Nonetheless a healthy diet including fruit and vegetables is considered by nutritionists and health providers to be needed in order to sustain a healthy lifestyle and to reduce the risk of cardiac disease and cancers⁸⁹.

Intention to participate in physical activity: In the follow up, the proportions of participants in the BEAT IT (92%) and HEAL (85%) programs who had changed their lifestyle to include physical activity was greater than the proportion who had indicated their intention to include physical activity immediately after the program, 83% in the BEAT IT and 79% in the HEAL program. This indicates that the majority of participants had not only recognised the need to include physical activity to maintain a healthy lifestyle, but in the follow up a greater proportion had implemented and sustained this change. Research shows that physical activity confers a positive benefit on health and decreases possibilities of ill health; reducing the risks of cardiovascular disease, diabetes and the incidence of some cancers, most notably colon and breast⁸⁷.

Sign on for other programs: After participating in the programs 100% of HEAL participants and 90% of EAT IT participants intended to sign on for other programs. This indicates that participants felt that the programs had been enjoyable and beneficial experiences.

Refer others: The highest proportions (97%) of participants in the EAT IT program were willing to refer this program to others, followed by the BEAT IT (93%) and HEAL (93%) programs. This indicates that the participants are motivated to increase healthy eating habits and share the benefits with others.

Satisfaction: Most participants in each of the healthy lifestyle programs indicated that they were satisfied with the activities of the programs. The program with the highest level of satisfaction was the EAT IT program (100%), followed by BEAT IT (98%) and HEAL (93%), and this level of satisfaction had been sustained over six months of time in the BEAT IT (92%) and HEAL programs (92%).

Confidence in healthy lifestyle

Confidence in maintaining a healthy lifestyle: After completing the programs, participants indicated their increase in confidence in maintaining a healthy lifestyle. The mean ratings of participants in the EAT IT program ranged from 3.81 to 4.23 indicating the participants' confidence level had increased significantly in choosing, buying, shopping and budgeting for healthy food; however, no follow up data was available for this program.

Similarly, the confidence level of most of the participants in shopping for healthy food and drinks, budgeting and meal planning, choosing healthy food, and buying affordable food, in both the BEAT IT and HEAL programs increased from a moderate level to a slightly higher level. This demonstrates that these programs have been of great benefit in providing participants with the knowledge and tools to live and maintain a healthy lifestyle (see Table 42 in Appendix 2).

Confidence in making healthy lifestyle choices: The EAT IT program had the highest proportion (94%) of participants who felt the program had increased their confidence and skills in making healthier lifestyle choices compared to 93% of HEAL and 81% of BEAT IT programs. The proportion of participant increased in the BEAT IT program (92%) and decreased in the HEAL program (83%) in the follow up survey. This increase in the BEAT IT program may be due to participants being initially unaware of how much they had absorbed during the program, with these skills and confidence taking time to develop and were consequently more apparent in the follow up. The proportion of participants in the HEAL program who felt that their skills and confidence had improved as a result of the program, while remaining quite high, decreased between after and follow up surveys. This may be a result of participants initially being quite eager to implement the skills they had learnt immediately after the program, however over a period of time they become less inclined to implement them which would see a decrease in confidence or they may have realised the skills are not as useful as first thought.

Concluding comments

The EAT IT program had the highest level of behavioral change in six of the nine areas investigated: awareness of healthy lifestyle activities, knowledge, skills and confidence, intention to include healthy eating, intention to refer program to others, and overall satisfaction. This program had the highest increase in confidence in all of the areas of maintaining a healthy lifestyle including shopping, budgeting, buying affordable food, choosing healthy food, and planning.

In comparison the HEAL program had the highest level of behavioral change in the areas of awareness of risk factors associated with an unhealthy lifestyle and intention to sign on for other programs. It also revealed that this program had increased in participants exercising for

fitness and recreation. The BEAT IT program, on the other hand, had the highest level of behavioral change in intention to include physical activity with significantly more people exercising for fitness. There were also significant improvements in overall health and level of fitness of the participants. The HEAL program was the only program that had significant decreases in the amount of take-away or fast foods eaten by participants, and none of the programs had significant increases in how often participants prepared and cooked food from basic ingredients, or ate vegetables, fruit or salad.

These findings indicated that all of the healthy lifestyle programs were successful in increasing participants' knowledge and awareness of how to maintain a healthy lifestyle. The beneficial impact of these programs is demonstrated in recognising the importance of healthy eating and physical activity in their lifestyle.

While the EAT IT program had the highest levels of behavioral change and the highest confidence level of participants in maintaining a healthy lifestyle with respect to healthy eating, while the BEAT IT program attracted twice the number of participants, and addressed the importance of both healthy eating and physical activity in maintaining a healthy lifestyle.

Although the EAT IT program had a high level of behavioural change among participants, the BEAT IT program was able to deliver a broader message to a larger number of people.

Health Promotion

Changes in knowledge

Following the completion of the program, 83% of participants in the Diabetes Awareness seminar indicated that participation in the program had increased their knowledge about the benefit of healthy eating, while 58% of those in Jamie's Ministry of Food indicated this.

Awareness of healthy lifestyle: After completing the programs, 91% of participants in the Diabetes Awareness seminar and 49% in Jamie's Ministry of Food indicated that participation had increased their awareness about healthy lifestyle activities. In the Diabetes Awareness seminar, 72 % of participants were retired and over 60 years of age, in comparison to Jamie's ministry of Food where only 18% were retired and over 60 years of age, and 42% were aged between 45 and 59. Middle age (45-64 years of age) Australians have the highest combined rates of overweight and obesity compared to other age groups⁹⁰. These programs are of great support to reduce overweight and obesity in the community.

Most participants (86%) in the Diabetes Awareness seminar indicated that the program had increased their awareness of risk factors associated with poor diet and low levels of physical activity. This was not reflected in Jamie's Ministry of Food program however 62% of participants in Jamie's Ministry of Food program indicated that the program had increased

their skills and confidence in making healthy lifestyle choices. This can be considered a positive result as it is estimated that over the next 20 years, 700,000 hospital admissions and 123,000 deaths will be a direct consequence of overweight in middle aged Australians⁴³.

Changes in behavior

Intention to include healthy eating: After completing the programs, 74% of participants in the Diabetes Awareness seminar and 62% of those in Jamie's Ministry of Food intended to change their lifestyle to include healthy eating. This demonstrates that most participants in both programs realised the importance of healthy eating to maintain a healthy lifestyle. A healthy diet including fruit and vegetables is considered by nutritionists and health providers to be needed in order to sustain a healthy lifestyle and reduce the risk of cardiac disease and cancers⁸⁹.

Sign on for other programs: Most participants indicated they intended to sign on for other Live Life Healthy programs. The Diabetes Awareness seminar had a higher proportion of participants intending to sign on for other programs (74%) compared to 62% in Jamie's Ministry of Food. This indicates that almost three-quarters of participants in the Diabetes Awareness seminar and over three-fifths of participants in Jamie's Ministry of Food were interested in continuing to make changes in their lifestyles.

Fruit and vegetable consumption: More than three-quarters (77%) of the participants in the Diabetes Awareness seminar and 53% Jamie's Ministry of Food indicated their intention to increase the amount of fruit and vegetable consumption in each week. This indicates that over half the participants in both programs recognised the importance of fruit and vegetable consumption in maintaining a healthy diet.

Over half (56%) of the participants in Jamie's Ministry of Food indicated that the program had increased the number of participants who cooked with basic ingredients per week, and over three-quarters (76%) of participants indicated that this program increased their cooking skills. Improving diet and intake of food, and increasing physical activity remain the healthiest and least risky ways of losing weight. It is predicted that a loss of 5kg would result in 34% of fewer deaths, and 10kg would result in 56% of fewer deaths each year in Australia⁹⁰.

Refer others: Of the participants, 84% in the Diabetes Awareness seminar, 84% indicated that they would refer this program to others, compared to 82% participants in Jamie's Ministry of Food program. This suggests that the participants in both programs viewed the programs as a beneficial and enjoyable experience.

Satisfaction: Most of the participants (90%) in Diabetes Awareness seminar were satisfied with the program, compared to 87% in Jamie's Ministry of Food. This suggests that the

programs were successful in increasing participants' knowledge, awareness, and skills regarding their healthy living.

Concluding comments

Both the diabetes awareness seminar and Jamie's Ministry of Food had increased the level of confidence in cooking, greater awareness and knowledge of the topics addressed in each program, and an intention to make changes in their lifestyle as a result of what they had learnt.

Some comments provided by participants include: "I really loved the Jamie's' Ministry. Well run, organised, lovely meals. I am confident to cook them again. I have bought three new Jamie's cook books. I love cooking, but have learnt some extra skills and ideas. I was amazed with the truck and staff. Excellent.", "Made me more aware of the danger of diabetes and knowledge of where to get help", "Learnt more healthy choices when cooking and wish to attend many courses on cooking", "There were lots of great hints and I tried a few new foods that I have not known how to cook previously", "Becoming more aware of the right eating and required increasing physical activities". These comments indicate that the program had increased their knowledge and awareness in healthy eating, exercise and diabetes.

Both programs attracted a similar number of participants, however the Diabetes Awareness seminar had consistently higher levels of behavioural change, especially intention to include healthy eating in their lifestyles, knowledge about the benefit of healthy eating, awareness of healthy lifestyle activities, and fruit and vegetable consumption. Qualitative data also support these changes such as increased skills, confidence and knowledge regarding cooking.

This indicates that the health promotion programs had great success in providing participants with the tools and knowledge to maintain a healthy lifestyle and encouraging participants to make positive changes to their lifestyle.

Limitations

The overall findings of this evaluation can be confidently considered to represent the implementation of the Live Life Healthy program in the Fraser Coast region. The two limitations that need to be considered are the representativeness of the participants and self-reporting bias.

Participation in the programs was voluntary and based on the personal motivation of the participants. Therefore, the responses were credible.

Few programs had a limited number of participants and follow up data were not collected from the participants of all the Live Life Healthy Programs; however, the high level of

consistency in data collection shows that self-report was a useful measure of implementation in this evaluation study.

Despite these limitations, results from this evaluation are plausible and indicate strengths and limitations in implementations generally consistent with where programs were undertaken. There is no evidence to suggest that actual implementation of the Live Life Healthy Program was significantly different to that reported.

RECOMMENDATIONS

Based on the findings the following recommendations are made to ensure that the LLH program continues to be an effective initiative to improve health and wellbeing of the low socio-economic group of people in the region.

1. As the Live Life Healthy programs is effective in changing the behaviour of the participants in maintaining healthy lifestyles, this program needs to continue to sustain this behaviour of the community people in the region over a period of time.
2. Provide ongoing support and information on healthy lifestyle programs, including practical skills to help participants maintain their sustain healthy eating habits.
3. Incorporate more information on the benefits of physical activity and healthy eating into the aquatic exercise program as this program attracted a significantly larger number of participants.
4. Within Jamie's Ministry of Food, greater importance should be placed on knowledge and awareness of maintaining a healthy lifestyle and the importance of healthy eating, as there were much lower levels of behavioural change in these areas.
5. The newspaper articles, past participant referrals, TV/radio, council website, community groups, and information sessions have been utilised by the participants in most cases and therefore these sources of information need to continue to be utilised to promote and advertise all the healthy lifestyle programs in the community.
6. Provide more information on the skills involved in exercising so that participants are more likely to engage in physical activity.

SUMMARY AND CONCLUSIONS

Based on the self-reported data the LLH programs have increased participants' knowledge, confidence, skills and changes in behaviour about maintaining a healthy lifestyle and motivated them to change their lifestyle to include physical activity. The participants reported that they are:

- ◆ feeling much healthier and had increased their amount of exercise;

- ◆ aware of the risk factors associated with poor diet and low levels of physical activity and their confidence and skills in making healthier lifestyle choices in areas such as shopping for healthy food and drinks, budgeting and meal planning, choosing healthy food, and buying affordable food;
- ◆ aware of the health issues and the benefits of exercise and a healthy diet;
- ◆ encouraged to develop healthier eating habits;
- ◆ feeling significant improvements in the health status and level of fitness as a result of the programs;
- ◆ having greater confidence and skills in cooking;
- ◆ aware of the dangers of diabetes.

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APPENDICES

Appendix 1: Ethics Approval



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Monday, 4 June 2012

Dr Delwar Hossain
C-34AH
USQ

Dear Delwar

The USQ Human Research Ethics Committee (HREC) at its meeting on assessed your application and agreed that your proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research (2007)*. Your project has been endorsed and full ethics approval granted.

Project Title	Live Life Health Program - Healthy Communities Initiative
Approval no.	H12REA110
Expiry date	30 June 2013
HREC Decision	Approved with recommendations: 1) It is suggested that the participant Information Sheet should expand on what the surveys are about.

Please note: the application is approved unconditionally; the recommendations have the status of informal advice which you are not obliged to take note of.

The standard conditions of this approval are:

- conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
- advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
- make submission for approval of amendments to the approved project before implementing such changes
- provide a 'progress report' for every year of approval
- provide a 'final report' when the project is complete
- advise in writing if the project has been discontinued.

For (c) to (e) proformas are available on the USQ ethics website: <http://www.usq.edu.au/research/ethics/bio/human/>

Please note that failure to comply with the conditions of approval and the *National Statement (2007)* may result in withdrawal of approval for the project.

You may now commence your project. I wish you all the best for the conduct of the project

Melissa McKain
Ethics Committee Support Officer
Office of Research and Higher Degrees

Appendix 2: Extra Tables

Table 18: Behaviour changes of participations in the live cycling program

Impact	Statement	Yes (%)	Somewhat (%)	Unsure (%)
Confidence	My participation in this program has increased my skills and confidence in cycling	92	8	0
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.	72	28	0
Intention to change	I intend to increase my physical activity as a result of participation in this program	92	8	0
	I intend to sign on for other programs offered through the Live Life Health initiative.	76	12	12
Refer	I will refer others to this program	100	0	0
Satisfaction	Overall I am satisfied with the program	100	0	0

Table 19: Participants opinions in the community walk program (n=83)

Area of changes	Statement	Yes (%)	Somewhat (%)	No/Unsure (%)
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative	91	9	-
Intention to change	I intend to increase the amount of physical activity I engage in as a result of participation in this program	72	22	6
	I intend to sign on for other programs offered through the Live Life Health initiative	82	9	9
Refer others	I will refer others to this program	93	6	1
Satisfaction	Overall I am satisfied with the program	93	7	-

Table 20: Participants opinions in follow up to community walk program (n=4)

Area of changes	Statement	Yes (%)	Somewhat (%)
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative	75	25
Intention to change	I have increased the amount of physical activity I engage in as a result of participation in this program	50	50
Satisfaction	Overall I am satisfied with the program	75	25

Table 21: Participants opinions on community exercise program

Area of change	Statement	Yes	Somewhat	No/Unsure
		%	%	%
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.	86	12	2
Intention to change	I intend to increase the amount of physical activity I engage in as a result of participation in this program	89	6	5
	I intend to sign on for other programs offered through the Live Life Healthy initiative.	77	4	19
Refer others	I will refer others to this program	93	4	3
Satisfaction	Overall I am satisfied with the program	99	1	0

Table 22: Participants opinions on aquatic exercise program

Area of change	Statement	Yes (%)	Somewhat (%)	No/Unsure (%)
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative	83	13	4
Intention to change	I intend to increase the amount of physical activity I engage in as a result of participation in this program	87	10	3
	I intend to sign on for other programs offered through the Live Life Health initiative	73	10	17
Refer others	I will refer others to this program	96	1	3
Satisfaction	Overall I am satisfied with the program	90	3	7

Table 23: Amount of exercise in the BEAT IT program

Exercise in each week	Time	Mean*	F value	Sig.
30 minutes	Before	3.48	3.33	.05
	After	4.93		
	Follow up	3.50		
60 minutes	Before	3.00	6.71	.01
	After	4.48		
	Follow up	3.50		
≥150 minutes	Before	3.00	.37	.70
	After	4.00		
	Follow up	3.50		

*Means were calculated using 6 point scale: 1- never, 2=once a week, 3= 2 times a week, 4=3 times a week, 5= 4 times a week, 6= 5 or more times a week

Table 24: Tukey test results of amount of exercise in BEAT IT program

Exercise in each week	Time	Mean difference	Sig.
30 minutes	Before	-1.46	0.05
	After		
	Before	-0.02	1.00
	Follow up		
	After	1.43	0.23
	Follow up		
60 minutes	Before	-1.48	0.01
	After		
	Before	-0.50	0.69
	Follow up		
	After	0.983	0.24
	Follow up		

Table 25: Healthy eating habit of the participants in the BEAT IT program

Eating habit	Time	Mean*	SD	F value	Sig
In a normal week, how often do you prepare and cook a meal from basic ingredients?	Before	5.48	1.08	0.56	0.58
	After	5.67	0.91		
	Follow up	5.73	0.91		
How often, on average, do you eat take-away or “fast foods” (e.g., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?	Before	1.76	0.74	1.87	0.16
	After	1.83	0.92		
	Follow up	1.33	0.49		
How often do you eat vegetables or salad? (fresh, frozen or tinned)?	Before	5.37	1.06	2.35	0.10
	After	5.77	0.73		
	Follow up	5.67	0.89		
How often do you eat fruit (fresh, frozen, tinned or dried)?	Before	5.05	1.61	1.68	0.19
	After	5.46	1.11		
	Follow up	5.73	0.65		

*Means were calculated using 6 point scale: 1= never, 2=once a week, 3= 2 times a week,4= 3 times a week, 5=4 times a week, and 6=5 or more times a week.

Table 26: Health conditions of participants in the BEAT IT program

Health condition	Time	Mean*	SD	F value	Sig.
Health status	Before	2.93	0.79	7.15	0.001
	After	2.50	0.74		
	Follow up	2.00	1.04		
Level of fitness	Before	3.24	0.86	9.06	0.001
	After	2.67	0.78		
	Follow up	2.25	0.87		

*Means were calculated using a five point scale: 1= excellent, 2=very good, 3= good, 4=fair and 5=poor

Table 27: Tukey test results of health condition of participants in the BEAT IT program

Health condition	Time	Mean difference	Sig.
Health status	Before	0.43	0.04
	After		
	Before	0.93	0.01
	Follow up		
	After	0.50	0.13
	Follow up		
Level of fitness	Before	0.58	0.01
	After		
	Before	0.99	0.01
	Follow up		
	After	0.42	0.27
	Follow up		

Table 28: Confidence of the participants in the BEAT IT program

BEAT IT Program assisted with	Time	Mean*	SD	T value	Sig.
Shopping for healthy food and drinks	After	3.82	1.00	-0.52	0.61
	Follow up	4.00	1.10		
Budgeting & meal planning	After	3.37	1.16	-1.47	0.15
	Follow up	3.92	1.08		
Buying affordable food items for healthier home cooked meals	After	3.59	1.00	-0.99	0.33
	Follow up	3.92	1.08		
Choosing healthy food for my fridge, pantry or freezer	After	3.73	0.92	-0.32	0.75
	Follow up	3.83	1.12		
Planning easy healthy meals for myself or my family	After	3.73	0.90	-0.33	0.75
	Follow up	3.83	1.12		

*Means were calculated using a five point scale: 1= not at all, 2=a little bit, 3= moderately, 4= quite a bit, 5= extremely

Table 29: Behaviour changes of participants in the BEAT IT program

Area of change	Statement	Yes (%)	Somewhat (%)	Unsure (%)
Knowledge	My participation in this program has increased my knowledge of healthy eating / leading an active lifestyle	93	7	0
Confidence	My participation in this program has increased my skills and confidence in making healthier lifestyle choices	81	19	0
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities	83	15	2
	My participation in this program has increased my awareness of risk factors associated with poor diet and/or low levels of physical activity	90	5	5
Intention to change	I intend to change my lifestyle to include healthy eating as a result of participation in this program	88	12	0
	I intend to change my lifestyle to include physical activity as a result of my participation in this program	83	17	0
Refer others	I will refer others to this program	93	2	5
Satisfaction	Overall I am satisfied with the program	98	2	0

Table 30: Behaviour changes of participants in follow up to BEAT IT program

Area of change	Statement	Yes (%)	Somewhat (%)	Unsure (%)
Knowledge	My participation in this program has increased my knowledge of healthy eating / leading an active lifestyle	83	17	0
Confidence	My participation in this program has increased my skills and confidence in making healthier lifestyle choices	92	8	0
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities	100	0	0
	My participation in this program has increased my awareness of risk factors associated with poor diet and/or low levels of physical activity	92	8	0
Intention to change	I have changed my lifestyle to include healthy eating as a result of participation in this program	59	33	8
	I have changed my lifestyle to include physical activity as a result of my participation in this program	92	8	0
Satisfaction	Overall I am satisfied with the program	92	8	0

Table 31: Differences in eating habit of participants in the EAT IT program

Eating habit	Time	n	Mean*	SD	T value	Sig.
In a normal week, how often do you prepare and cook a meal from basic ingredients?	Before	26	5.19	1.42	-.02	.98
	After	35	5.20	1.30		
How often, on average, do you eat take-away or “fast foods” (eg.,fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?	Before	26	1.81	.94	.83	.41
	After	30	1.63	.62		
How often do you eat fruit, vegetables or salad? (fresh, frozen or tinned)?	Before	26	5.54	.86	-1.01	.32
	After	33	5.73	.57		

*Means were calculated using a six point scale: 1= never, 2= once a week, 3= 2 times a week, 4=3 times a week, 5= 4 times a week, 6=5 or more times a week.

Table 32: EAT IT assisted in increasing confidence

Has the EAT IT Program assisted you with the following:	Not at all (%)	A little bit (%)	Moderately (%)	Quite a bit (%)	Extremely (%)	Mean*	SD
Shopping for healthy food and drinks	-	-	10	64	26	4.16	.58
Budgeting & meal planning	3	3	29	39	26	3.81	.98
Buying affordable food items for healthier home cooked meals	-	-	10	61	29	4.19	.60
Choosing healthy food for my fridge, pantry or freezer	-	-	13	52	35	4.23	.67
Planning easy healthy meals for myself or my family	3	-	10	64	23	4.03	.80

*Means were calculated using a five point scale: 1= not at all, 2=a little bit, 3= moderately, 4= quite a bit, 5= extremely.

Table 33: Changes in behaviour of participants in the EAT IT program

Impact	Statement	Yes		Somewhat	
		n	%	n	%
Knowledge	My participation in this program has increased my knowledge of healthy eating and / or physical activity for a healthy lifestyle	29	94	2	6
Confidence	My participation in this program has increased my skills and confidence in making healthier lifestyle choices	29	94	2	6
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.	29	94	2	6
	My participation in this program has increased my awareness of risk factors associated with poor diet and / or low levels of physical activity	28	90	3	10
Behaviour change	I intend to change my lifestyle to include healthy eating	28	90	3	10
	I intend to sign on for other programs offered through the Live Life Health initiative.	28	90	3	10
Refer others	I will refer others to this program	30	97	1	3
Satisfaction	Overall I am satisfied with the program	31	100	-	-

Table 34: Tukey test results of eating habits in the HEAL program

Eating habit	Time	Mean difference	Sig.
How often, on average, do you eat take-away or “fast foods” (e.g., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?	Before	0.06	0.95
	After		
	Before	0.53	.02
	Follow up		
	After	0.47	0.06
	Follow up		

Table 35: Health status of participants in the HEAL program

Health Status	Time	Mean*	SD	F value	Sig.
How would you rate your overall health?	Before	2.78	.85	.58	.56
	After	2.47	1.06		
	Follow up	2.62	.77		
How would you rate your level of fitness?	Before	3.22	1.04	2.07	.14
	After	2.76	1.14		
	Follow up	2.54	.77		

*Means were calculated using a five point scale: 1= excellent, 2=very good, 3= good, 4=fair and 5=poor

Table 36: Confidence level of participants in the HEAL program

HEAL Program assisted with	Time	A little bit (%)	Moderately (%)	Quite a bit (%)	Extremely (%)	Mean	t value	Sig.
Shopping for healthy food and drinks	After	21	7	36	36	3.86	.21	.84
	Follow up	15	16	46	23	3.77		
Budgeting & meal planning	After	15	31	31	23	3.62	.73	.48
	Follow up	25	17	58	-	3.33		
Buying affordable food items for healthier home cooked meals	After	29	21	36	14	3.36	-.36	.72
	Follow up	17	25	50	8	3.50		
Choosing healthy food for my fridge, pantry or freezer	After	21	14	43	22	3.64	-.29	.77
	Follow up	23	8	38	31	3.77		
Planning easy healthy meals for myself or my family	After	21	22	43	14	3.50	-.49	.63
	Follow up	15	23	39	23	3.69		

Table 37: Behaviour changes of participants in the HEAL program

Impact	Statement	Yes		Somewhat	
		n	%	n	%
Knowledge	My participation in this program has increased my knowledge of healthy eating / leading an active lifestyle	11	85	2	15
Confidence	My participation in this program has increased my skills and confidence in making healthier lifestyle choices	13	93	1	7
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities	13	93	1	7
	My participation in this program has increased my awareness of risk factors associated with poor diet and/or low levels of physical activity	14	100	-	-
Intention to change	I intend to change my lifestyle to include healthy eating as a result of participation in this program	11	79	3	21
	I intend to change my lifestyle to include physical activity as a result of my participation in this program	11	79	3	21
	I intend to sign on for other programs offered through the Live Life Health initiative	14	100	-	-
Refer others	I will refer others to this program	13	93	1	7
Satisfaction	Overall I am satisfied with the program	13	93	1	7

Table 38: Behaviour changes of participants in follow up to HEAL program

Impact	Statement	Yes %	Somewhat %	No (%)
Knowledge	My participation in this program has increased my knowledge of healthy eating / leading an active lifestyle	85	15	-
Confidence	My participation in this program has increased my skills and confidence in making healthier lifestyle choices	83	17	-
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities	83	17	-
Intention to change	I intend to change my lifestyle to include healthy eating as a result of participation in this program	69	23	8
	I intend to change my lifestyle to include physical activity as a result of my participation in this program	85	15	-
Satisfaction	Overall I am satisfied with the program	92	8	-

Table 39: Impact of Jamie's Ministry of food program on participants n=45

Impact	Statement	Yes		Somewhat		No/unsure	
		n	%	n	%	n	%
Awareness	My participation in this program has increased my awareness of healthy lifestyle activities offered through councils Live Life Healthy initiative	22	49	14	31	9	20
Behaviour changed	I intend to change my lifestyle to include healthy eating as a result of participation in this program	28	62	14	31	3	7
	I intend to sign on for other programs offered through the Live Life Healthy initiative	30	67	7	16	8	17
	My participation in this program has increased the number of times per week I cook with basic ingredients	25	56	10	22	10	22
	My participation in this program has resulted in the amount of fruit and vegetables I consumed each week	24	53	13	29	8	18
	My participation in this program has increased my cooking skills	34	76	10	22	1	2
Knowledge	My participation in this program has increased my knowledge of healthy eating and physical activity for a healthy lifestyle	25	56	18	40	2	4
	My participation in this program has increased my knowledge about the benefits of healthy eating	26	58	16	36	3	6
Confidence	My participation in this program has increased my skills and confidence in making healthier lifestyle choices	28	62	15	34	2	4
Refer others	I will refer others to this program	37	82	6	14	2	4
Satisfaction	Overall I am satisfied with the program	39	87	5	11	1	2

Table 40: Behaviour changes of participants in Diabetes Awareness seminar

Impact	Statement	Yes		Somewhat		No	
		n	%	n	%	n	%
Awareness	My participation in this seminar has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.	30	91	3	9	-	-
	My participation in this program has increased my awareness of risk factors associated with poor diet and / or low levels of physical activity	24	86	2	7	2	7
Knowledge	This program increased my knowledge of the benefits of healthy eating and exercise for a healthy lifestyles	24	83	4	14	1	3
Behaviour change	I intend to increase the amount of physical activity I engage	23	72	7	22	2	6
	I intend to increase the amount of fruit and vegetables I eat each week as a result of participation in this program	24	77	3	10	4	13
	I intend to change my lifestyle to include healthy eating as a result of participation in this program	23	74	6	19	2	7
	I intend to sign on for other programs offered through the Live Life Health initiative.	19	61	2	6	10	33
Refer	I will refer others to this seminar or other Live Life Healthy programs	20	76	3	12	3	12
	I will refer others to this program	21	84	4	16	-	-
Satisfaction	Overall I am satisfied with the seminar	26	90	3	10	-	-

Table 41: Health status of participants in healthy lifestyle programs

Program	Time	Mean*	Test statistic	Sig.
BEAT IT	Before	2.93	F=7.15	.01
	After	2.50		
	Follow up	2.00		
EAT IT	Before	3.19	t=4.33	.01
	After	2.42		
HEAL	Before	2.78	F=.58	.56
	After	2.47		
	Follow up	2.62		

*Means were calculated on a five point scale, 1= excellent, 2=very good, 3= good, 4=fair and 5=poor

Table 42: Level of fitness of participants in healthy lifestyle programs

Program	Time	Mean*	Test statistic	Sig.
BEAT IT	Before	3.24	F=9.06	.01
	After	2.67		
	Follow up	2.25		
EAT IT	Before	3.31	t=3.33	.01
	After	2.66		
HEAL	Before	3.22	F=2.07	.14
	After	2.76		
	Follow up	2.54		

*Means were calculated on a five point scale, 1= excellent, 2=very good, 3= good, 4=fair and 5=poor

Table 43: Confidence in maintaining healthy lifestyle

Area	Program	After	Follow up
Shopping for healthy food and drinks	BEAT IT	3.82	4.00
	EAT IT	4.16	-
	HEAL	3.86	3.77
Budgeting and meal planning	BEAT IT	3.37	3.92
	EAT IT	3.81	-
	HEAL	3.62	3.33
Buying affordable food item for healthier home cooked meals	BEAT IT	3.59	3.92
	EAT IT	4.19	-
	HEAL	3.36	3.50
Choosing healthy food for my fridge, pantry or freezer	BEAT IT	3.73	3.83
	EAT IT	4.23	-
	HEAL	3.64	3.77
Planning easy healthy meals for myself or my family	BEAT IT	3.73	3.83
	EAT IT	4.03	-
	HEAL	3.50	3.69

Means were calculated using a five point scale: 1= not at all, 2=a little bit, 3= moderately, 4= quite a bit, 5= extremely.

Appendix 3: Evaluation Instruments

Live Cycling Program Before Questionnaire:



TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

To qualify for the subsidised price please provide the following information.

1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. Please indicate the amount of exercise you currently engage in each week.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
30 minutes						
60 minutes						
150 minutes or more						

7. Have you ever ridden a bicycle before? Yes ☐ No ☐

8. Please indicate your skill level in the following techniques.	Very good	Good	Fair	Poor	Not confident at all
Conducting a basic bike check					
Correct riding position					
Mounting and dismounting					
Braking, balancing and cornering					
Changing gears					
Riding on hills					
Stopping and turning					

9. Please rate your confidence level in cycling. 1=Low, 6=High

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

10. How would you rate your overall health?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

11. How did you hear about Live Cycling program?

- ☐ Past participant referral
- ☐ Information sessions
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Community or Neighborhood centre
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service Provider or Disability Service provider
- ☐ Community group
- ☐ The Project Reference Group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

12. Do you currently cycle for fitness? Yes ☐ N ☐
Do you currently cycle for recreation? Yes ☐ N ☐
Do you currently cycle for transport? Yes ☐ N ☐
None of the above Yes ☐ N ☐

Live Cycling Program After Questionnaire:



TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

1. Please rate your confidence level in cycling after completing the Live Cycling program. 1=Low 6=High

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

2. How would you rate your overall health after completing the Live Cycling program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

3. How would you rate your level of fitness after completing the Live Cycling program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

4. After completing the Live Cycling program do you intend to:

Cycle for fitness? Yes ☐ N ☐

Cycle for recreation? Yes ☐ N ☐

Cycle for transport? Yes ☐ N ☐

None of the above. Yes ☐ N ☐

5. Please indicate the amount of exercise you engage in each week after completing the Live Cycling program.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
30 minutes						
60 minutes						
150 minutes or more						

Please indicate your skill level in the following techniques.	Very good	Good	Fair	Poor	Not confident at all
6. Conducting a basic bike check					
8. Correct riding position					
8. Mounting and dismounting					
9. Braking, balancing and cornering					
10. Changing gears					
11. Riding on hills					
12. Stopping and turning					

Statement	Yes	Somewhat	No	Unsure
14. My participation in this program has increased my skills and confidence in cycling				
15. My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.				
16. I intend to increase my physical activity as a result of participation in this program				
18. I intend to sign on for other programs offered through the Live Life Health initiative.				
19. I will refer others to this program				
20. Overall I am satisfied with the program				

Community Walk Program Before Questionnaire:



1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. How did you hear about the Community Walk?

- ☐ Past participant referral
- ☐ Information sessions
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Community or Neighborhood centre
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service Provider or Disability Service provider
- ☐ Community group
- ☐ The Project Reference Group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

Disclaimer

1. I am in good fitness and health, making me capable of participating in the Community walk.
2. I do not have a medical condition that may affect my own safety or the safety of others. If I do have a medical condition I am aware of my capabilities and will participate in the Community walk within my limits and capabilities.
3. I release and indemnify Fraser Coast Regional Council and other organisations involved in organising the Community walk from all liability claims and costs whether in negligence or otherwise in connection with my participation in the Community walk.

I have read and acknowledge the above disclaimer. I acknowledge I may be photographed during the Community walk and my image may be used in local media and Councils webpage to promote the Live Life Healthy program.

Signature _____

If under 18 Signature of parent or guardian ____
Community Walk Program
After Questionnaire:



Statement	Yes	Somewhat	No	Unsure
7. My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.				
8. I intend to increase the amount of physical activity I engage in as a result of participation in this program				
9. I intend to sign on for other programs offered through the Live Life Health initiative.				
10. I will refer others to this program				
11. Overall I am satisfied with the program				

☐ I would like to receive information about other Live Life Healthy programs and events (please provide Email below)

Which programs would you like further information on?

- ☐ Community walks
- ☐ BEAT IT
- ☐ EAT IT
- ☐ HEAL
- ☐ AustCycle
- ☐ Live Cycle
- ☐ Community Exercise
- ☐ Community Garden
- ☐ Diabetes Know the Score Information session
- ☐ Information session for carers and people with a disability
- ☐ Health Cooking Demonstration / Healthy BBQ
- ☐ Heart Foundation walking
- ☐ ALL OF THE ABOVE

☐ I would be happy to provide feedback about the program to the organisers via a follow up phone call.

Contact phone _____

Contact email _____

Community Exercise Program Questionnaire:



1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. Did you participate in any of the following activities? Please tick all that apply.

- ☐ Boot camp
- ☐ Boxercise
- ☐ Mums and bubs
- ☐ Circuit Training
- ☐ Aqua Aerobics
- ☐ Pilates
- ☐ Cumbia
- ☐ Seniors Light and Easy
- ☐ Slackline
- ☐ Core based circuit

7. How did you hear about the Community Exercise program?

- ☐ Past participant referral
- ☐ Information sessions
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Community or Neighborhood centre
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service Provider or Disability Service provider
- ☐ Community group
- ☐ The Project Reference Group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

Statement	Yes	Somewhat	No	Unsure
8. My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.				
9. I intend to increase the amount of physical activity I engage in as a result of participation in this program				
10. I intend to sign on for other programs offered through the Live Life Healthy initiative.				
11. I will refer others to this program				
12. Overall I am satisfied with the program				

13. Has this program benefited you? Yes ☐ No ☐

If yes please tell us how this program has benefited

Would you like to receive information on other Live Life Healthy programs? Yes ☐ No ☐

If yes please fill in your details below.

Name

Phone

Email

Aquatic Exercise Program Questionnaire:



1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. Did you participate in any of the following activities? Please tick all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Mums and bubs | <input type="checkbox"/> Marathon |
| <input type="checkbox"/> Aqua Aerobics | <input type="checkbox"/> Core based circuit |
| <input type="checkbox"/> Low Impact | <input type="checkbox"/> Special Needs Aqua |
| <input type="checkbox"/> Aqua Zumba | <input type="checkbox"/> Water men |
| <input type="checkbox"/> Aqua Light | <input type="checkbox"/> Yoga |

7. How did you hear about the Community Exercise program?

- ☐ Past participant referral
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service Provider or Disability Service provider
- ☐ Community group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

Statement	Yes	Somewhat	No	Unsure
8. My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.				
9. I intend to increase the amount of physical activity I engage in as a result of participation in this program				
10. I intend to sign on for other programs offered through the Live Life Healthy initiative.				
11. I will refer others to this program				
12. Overall I am satisfied with the program				

13. Has this program benefited you? Yes ☐ No ☐

If yes please tell us how this program has benefited

BEAT IT Program



Before Questionnaire:

TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

To qualify for the subsidised price please provide the following information.

1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. Do you currently exercise for fitness? Yes ☐ N ☐

Do you currently exercise for recreation? Yes ☐ N ☐

Do you currently exercise for transport? Yes ☐ N ☐

None of the above Yes ☐ N ☐

7. If Yes, Please indicate the amount of exercise you currently engage in each week.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
30 minutes						
60 minutes						
150 minutes or more						

Please indicate your current eating habits	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
8. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
9. How often, on average, do you eat take-away or “fast foods” (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
10. How often do you eat vegetables or salad? (fresh, frozen or tinned)?						
11. How often do you eat fruit (fresh, frozen, tinned or dried)?						

12. How would you rate your overall health?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

13. How would you rate your level of fitness?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

14. How did you hear about the BEAT IT program?

- ☐ Past participant referral
- ☐ Information sessions
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Community or Neighborhood centre
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service or Disability Service provider
- ☐ Community group
- ☐ The Project Reference Group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

BEAT IT Program



After Questionnaire:

TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

1. Do you currently exercise for fitness? Yes ☐ N ☐

Do you currently exercise for recreation? Yes ☐ N ☐

Do you currently exercise for transport? Yes ☐ N ☐

None of the above Yes ☐ N ☐

2. If yes, Please indicate the amount of exercise you engage in each week after completing the BEAT IT program.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
30 minutes						
60 minutes						
150 minutes or more						

<i>Please indicate your eating habits after completing BEAT IT</i>	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
3. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
4. How often, on average, do you eat take-away or "fast foods" (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
5. How often do you eat vegetables or salad? (fresh, frozen or tinned)?						
6. How often do you eat fruit (fresh, frozen, tinned or dried)?						

7. How would you rate your overall health after completing the BEAT IT program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

8. How would you rate your level of fitness after completing the BEAT IT program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

<i>Has the BEAT IT Program assisted you with the following:</i>	Not at all	A little bit	Moderately	Quite a bit	Extremely
9.Shopping for healthy food and drinks					
10.Budgeting & meal planning					
11.Buying affordable food items for healthier home cooked meals					
12.Choosing healthy food for my fridge, pantry or freezer					
13.Planning easy healthy meals for myself or my family					

Statement	Yes	Somewhat	No	Unsure
14. My participation in this program has increased my knowledge of healthy eating and physical activity for a healthy lifestyle				
15. My participation in this program has increased my skills and confidence in making healthier lifestyle choices				
16. My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.				
17.I intend to change my lifestyle to include healthy eating as a result of participation in this program.				
18. I intend to change my lifestyle to include physical activity as a result of participation in this program.				
19. My participation in this program has increased my awareness of risk factors associated with poor diet and / or low levels of physical activity				
20.I intend to sign on for other programs offered through the Live Life Health initiative.				
21. I will refer others to this program				
22. Overall I am satisfied with the program				

EAT IT Program Before Questionnaire:



TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

To qualify for the subsidised price please provide the following information.

1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

Please indicate your eating habits	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
6. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
7. How often, on average, do you eat take-away or “fast foods” (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
8. How often do you eat fruit vegetables or salad? (fresh, frozen or tinned)?						

9.

How many serves of fruit do you eat each day?	1	2	3	4	5	6	7	8	9	10
How many serves of vegetables do you eat each day ?	1	2	3	4	5	6	7	8	9	10

10. How would you rate your overall health?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

11. How would you rate your level of fitness?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

12. How did you hear about the EAT IT program?

- ☐ Past participant referral
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service Provider or Disability Service provider
- ☐ Community group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

Thank you for completing this survey!

EAT IT Program After Questionnaire:



TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

Please indicate your eating habits after completing EAT IT.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
1. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
2. How often, on average, do you eat take-away or "fast foods" (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
3. How often do you eat fruit vegetables or salad? (fresh, frozen or tinned)?						

4.

How many serves of fruit do you eat each day after completing the EAT IT program?	1	2	3	4	5	6	7	8	9	10
How many serves of vegetables do you eat each day after completing the EAT IT program?	1	2	3	4	5	6	7	8	9	10

5. How would you rate your overall health after completing the EAT IT program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

6. How would you rate your level of fitness after completing the EAT IT program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

Has The EAT IT Program assisted you with the following:	Extremely	Quite a bit	Moderately	A little bit	Not at all
7.Shopping for healthy food and drinks					
8.Budgeting & meal planning					
9.Buying affordable food items for healthier home cooked meals					
10.Choosing healthy food for my fridge, pantry or freezer					
11.Planning easy healthy meals for myself or my family					

Please complete the following statements by ticking the appropriate box:

Statement	Yes	Somewhat	No	Unsure
12. Participation in the activity has increased my knowledge of healthy eating / leading an active lifestyle				
13. Participation in the activity has increased my skills and confidence in making healthier lifestyle choices				
14. Participation in the activity has increased my awareness of healthy lifestyle activities				
15. I intend on making more healthy choices in future as a result of my participation in this activity				
16. I enjoyed participating in this activity				
17. It increases my knowledge of the risk factors associated with poor diet and low levels of physical activity?				

Thank you for completing this survey!

HEAL Program



Before Questionnaire:

TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

To qualify for the subsidised price please provide the following information.

1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. Do you currently exercise for fitness? Yes ☐ N ☐

Do you currently exercise for recreation? Yes ☐ N ☐

Do you currently exercise for transport? Yes ☐ N ☐

None of the above Yes ☐ N ☐

7. If Yes, Please indicate the amount of exercise you currently engage in each week.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
30 minutes						
60 minutes						
150 minutes or more						

Please indicate your current eating habits	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
8. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
9. How often, on average, do you eat take-away or “fast foods” (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
10. How often do you eat vegetables or salad? (fresh, frozen or tinned)?						
11. How often do you eat fruit (fresh, frozen, tinned or dried)?						

12. How would you rate your overall health?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

13. How would you rate your level of fitness?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

14. How did you hear about the HEAL program?

- ☐ Past participant referral
- ☐ Information sessions
- ☐ Information provided at an event (please state which event) _____
- ☐ Referral after completing another Live Life Health event (please indicate program) _____
- ☐ Community or Neighborhood centre
- ☐ Council's web site
- ☐ Newspaper articles
- ☐ Facebook or Twitter
- ☐ Live Life Health Flyer
- ☐ Job Service or Disability Service provider
- ☐ Community group
- ☐ The Project Reference Group
- ☐ Existing Council activities, programs and departments
- ☐ Doctor
- ☐ Others (please) specify.....

HEAL Program



After Questionnaire:

TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

1. Do you currently exercise for fitness? Yes ☐ N ☐

Do you currently exercise for recreation? Yes ☐ N ☐

Do you currently exercise for transport? Yes ☐ N ☐

None of the above Yes ☐ N ☐

2. If yes, Please indicate the amount of exercise you engage in each week after completing the HEAL program.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
30 minutes						
60 minutes						
150 minutes or more						

<i>Please indicate your eating habits after completing BEAT IT</i>	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
3. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
4. How often, on average, do you eat take-away or "fast foods" (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
5. How often do you eat vegetables or salad? (fresh, frozen or tinned)?						
6. How often do you eat fruit (fresh, frozen, tinned or dried)?						

7. How would you rate your overall health after completing the HEAL program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

8. How would you rate your level of fitness after completing the HEAL program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

<i>Has the HEAL Program assisted you with the following:</i>	Not at all	A little bit	Moderately	Quite a bit	Extremely
9.Shopping for healthy food and drinks					
10.Budgeting & meal planning					
11.Buying affordable food items for healthier home cooked meals					
12.Choosing healthy food for my fridge, pantry or freezer					
13.Planning easy healthy meals for myself or my family					

Statement	Yes	Somewhat	No	Unsure
14. My participation in this program has increased my knowledge of healthy eating and physical activity for a healthy lifestyle				
15. My participation in this program has increased my skills and confidence in making healthier lifestyle choices				
16. My participation in this program has increased my awareness of healthy lifestyle activities offered through Councils Live Life Healthy initiative.				
17.I intend to change my lifestyle to include healthy eating as a result of participation in this program.				
18. I intend to change my lifestyle to include physical activity as a result of participation in this program.				
19. My participation in this program has increased my awareness of risk factors associated with poor diet and / or low levels of physical activity				

20.I intend to sign on for other programs offered through the Live Life Health initiative.				
21. I will refer others to this program				
22. Overall I am satisfied with the program				

Thank you for completing this survey!



Before Questionnaire:

TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

To qualify for the subsidised price please provide the following information.

1. Please identify your current employment status:

Unemployed ☐ Employed – part time ☐ Employed - casual ☐ Retired ☐ Other ☐

2. Are you: Male ☐ Female ☐

3. Are you a person with a disability? Yes ☐ No ☐

4. Are you a carer of a person with a disability? Yes ☐ No ☐

5. Please indicate your age group. 18-29 ☐ 30-44 ☐ 45-59 ☐ 60+ ☐

6. How would you rate your overall health?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

7. How would you rate your level of fitness?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

8. Please indicate your eating habits	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
a. In a normal week, how often do you prepare and cook a meal from basic ingredients?						
b. How often, on average, do you eat take-away or "fast foods" (eg., fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
c. How often do you eat fruit vegetables or salad? (fresh, frozen or tinned)?						

9. How many serves of fruit do you eat each day?	1	2	3	4	5	6	7	8	9	10
10. How many serves of vegetables do you eat each day ?	1	2	3	4	5	6	7	8	9	10

11. Did you attend in any cooking activities/classes before? ☐ Yes ☐ No

12. If yes what cooking activities/classes did you attend?

- ☐ How to cook healthy meal
- ☐ How to select healthy food items to cook healthy food
- ☐ How to shop healthy eating food
- ☐ Healthy BBQ
- ☐ Information session on healthy eating- presentation, recipe books
- ☐ Surviving cyclone season
- ☐ Homemade takeaway
- ☐ Easy meals for carer
- ☐ Keep food diaries tracking dietary intakes and food consumption pattern.

13. How did you hear about the Jamie's Ministry of food program?

- ☐ Referral pathways
- ☐ Marketing activities including, web site, media articles, promotional material
- ☐ The Project Reference Group
- ☐ Existing Council activities, programs and departments
- ☐ Others (please) specify.....

Thank you for completing this survey!



After Questionnaire:

TO BE COMPLETED BY THE FACILITATOR:

Program Location (first 3 letters of suburb): _____

Facilitator Code: (first 3 letters of surname) _____

Group Code: _____ Start Date: _____

Participant Code: _____

1. How would you rate your overall health after completing the Jamie's Ministry of food program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

2. How would you rate your level of fitness after completing the Jamie's Ministry of food program?

Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐

3. Were you satisfied with the Jamie's Ministry of food program? Yes ☐ No ☐

4. Did the Jamie's Ministry of food program increase your knowledge about the benefits of healthy eating and exercise? Yes ☐ No ☐

5. If yes, please indicate what are those?

- ☐ Increased my skills in preparing healthy food
- ☐ Awareness increased about healthy eating
- ☐ Factors associated with poor diet
- ☐ Factor associated with low level of physical activity

Please indicate your eating habits after completing Jamie's Ministry of food.	Never	Once a week	2 times a week	3 times a week	4 times a week	5 or more times a week
6. In a normal week, how often do you prepare and cook a meal from basic ingredients?						

7. How often, on average, do you eat take-away or “fast foods” (eg.,fish and chips, hamburgers, pizza, sausage rolls, meat pies, etc)?						
8. How often do you eat fruit vegetables or salad? (fresh, frozen or tinned)?						

9. How many serves of fruit do you eat each day after completing the Jamie’s Ministry of food program?	1	2	3	4	5	6	7	8	9	10
10. How many serves of vegetables do you eat each day after completing the Jamie’s Ministry of food program?	1	2	3	4	5	6	7	8	9	10

Has The Jamie’s Ministry of food Program assisted you with the following:	Extremely	Quite a bit	Moderately	A little bit	Not at all
11.Shopping for healthy food and drinks					
12.Budgeting & meal planning					
13.Buying affordable food items for healthier home cooked meals					
14.Choosing healthy food for my fridge, pantry or freezer					
15.Planning easy healthy meals for myself or my family					
16. Participation in the activity has increased my knowledge of healthy eating / leading an active lifestyle					
17. Participation in the activity has increased my skills and confidence in making healthier lifestyle choices					
18. Participation in the activity has increased my awareness of healthy lifestyle activities					

19. I intend on making more healthy choices in future as a result of my participation in this activity					
20. I enjoyed participating in this activity					
21. It increases my knowledge of the risk factors associated with poor diet and low levels of physical activity?					

22. Will you referring others to attend this type of program? ☐ Yes ☐ No

23. Do you have any other comments / feedback to provide about the program / activity?

Thank you for completing this survey!