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RESEARCH AND POLICY

An Evaluation of the Active Families Programme in Otara, Mangere and Manurewa

Final Report

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Abbreviations

BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
CMDHB	Counties Manukau District Health Board
GP	General Practitioner
HEHA	Healthy Eating Healthy Action
LBD	Let's Beat Diabetes
PHO	Primary Health Organisation
SPARC	Sport and Recreation New Zealand

Executive Summary

The Active Families programme is run by Otara Health Incorporated in collaboration with LBD, SPARC, Total Healthcare Otara and ProCare. Its aim is to promote a healthy lifestyle among Maori and Pacific families in Otara, Mangere and Manurewa, including healthy eating and physical activity. Its evaluation is detailed in this report. The main objectives of the evaluation were to:

- Describe and evaluate the Active Families processes that enable and constrain its effectiveness and impacts.
- Identify barriers and enablers affecting collaboration and implementation of the programme.
- Support the Active Families programme to develop its evaluation readiness and capability to support the growth and development of the programme.

In order to achieve the objectives, the evaluation utilised a mixed method inquiry which included three key methods of data collection: focus groups with participants, key stakeholder interviews and a quantitative analysis of programme and outcome data.

Participant focus groups

The focus group discussions conducted with the parent participants covered a variety of topics, including programme attendance and participation, lifestyle changes encouraged by the programme, and changes that they had seen as a result of their participation in the programme. Parents found that they were encouraged to make changes to their lifestyle with respect to nutrition and physical activity. While extended family could be a support, lack of buy-in from family members was often noted as a barrier to change. Some found that the timing of the programme in the afternoon, and tiredness or lack of motivation would hinder them from attending the sessions. Other barriers included the increase in time involved in healthier food preparation, especially when busy work schedules had to be overcome. Environmental barriers for physical activity were also described, such as lack of nearby parks. Changes noted by parents included: changes to knowledge about nutrition, specifically label reading; changes in attitude towards healthier foods; changes to behaviour with respect to eating and physical activity; physical changes that they saw in their children; changes to their larger families and community as a result of their participation. Parents also noted that other areas of their lives were also impacted such as better interpersonal skills in their children. In general, the parents were very happy with the Active Families programme, and most of the programme-specific feedback was around increasing the number of session times during the week, additions to the nutrition sessions, and increasing awareness of the programme in schools.

The focus group discussion with the child participants covered similar topics to those in the parent discussions. Participants also discussed how they were making lifestyle changes, and while most of these were around increasing physical activity by involving family and friends, there was some discussion of how changes in nutrition were encouraged by a recent media release on a food safety issue. Some of the participants found that the sessions were tiring

or repetitive, and this discouraged them. Barriers to making lifestyle changes were also discussed, though these barriers were mostly to making changes to nutrition, and the lack of support for making those changes with friends outside of the programme. A sense of embarrassment about being in a “weight reduction” programme or “health programme” was also expressed by some participants. Some of the changes noted by children included: changes to their nutrition knowledge; changes to their attitude towards food and exercise; behavioural changes to eating and exercise; physical changes they saw in themselves; changes they saw in their families and communities. Children also noted other areas of their lives where they saw a difference; these areas included being more responsible at home and school. The children generally enjoyed the programme and the facilitators who ran the sessions. In general the participants enjoyed the social connection that the programme provided to other children and families, and this was one of the main motivators for attending the programme and staying involved in it.

Stakeholder Interviews

One of the major themes that emerged from interviews was related to the referral process. Both facilitators and stakeholders strongly identified the referral process as a barrier to the implementation of the programme where low referrals into the programme, a lack of dedicated personnel in primary care organisations and short GP consultation times were all identified as limiting the success of the programme. There also appeared to be a lack of buy-in and understanding from key personnel in primary care organisations, particularly from GPs and Practices Nurses directly implicated in the programme. Barriers for the implementation of the programme included poor communication systems in primary care practices where issues such as staff turnover resulted in difficulty in maintaining high levels of awareness of the programme amongst primary care practitioners. Limited capacity and resources, lack of participation from parents and the disconnection between primary health organisations were also identified as barriers to implementation. Key stakeholders also reported on factors that contribute to successful implementation of the programme which include the planning, organisation and management of the programme, and the adaptability, enthusiasm and trust within the programme. There appears to be a high level of enthusiasm and motivation within the programme particularly from the programme facilitators. It was clear that programme sustainability was an important issue for stakeholders. It was proposed that sustainability could be improved through developing a focus that extends beyond the programme and supports families in maintaining healthy lifestyles after they have left the programme. Overall the key stakeholders felt satisfied with the programme and the progress to date, they also provided many ideas surrounding how the programme could be improved in the future. These factors included enhanced collaboration, staff development, programme expansion and improved referral processes.

Lifestyle questionnaire

A comparison of baseline and three-month assessments in nutrition and physical activity measures showed the following statistically significant results:

- Children reported drinking soft drinks less frequently at three months post programme
- Children showed improved knowledge about vegetable intake in order to be healthy

- Children reported an improved perception of their knowledge to make healthy choices for themselves
- Caregivers showed improved knowledge about appropriate meat intake in order to be healthy

A comparison of baseline and six-month assessments in nutrition and physical activity measures showed the following statistically significant results:

- Children reported drinking energy drinks, juice and cordial less frequently at six months after programme initiation
- Children showed improved knowledge about vegetable intake in order to be healthy
- Children showed improved knowledge about meat intake in order to be healthy
- Children reported an increased time undertaking physical activities
- Children reported an improved perception of their knowledge to make healthy choices for themselves

Children's physical outcomes

At the three-month assessment, the following outcomes were observed:

- Children had significantly gained height
- Children had significantly reduced girth
- Children had significantly improved their physical performance as measured through step-ups and runs.

At the six-month assessment, the following outcomes were observed:

- Children had significantly gained height
- Children had significantly gained weight
- No significant girth reduction was observed
- Children had significantly improved their physical performance as measured through step-ups only.

Overall, the Active Families programme in South Auckland shows indicators of success in achieving its desired outcomes, despite factors hindering process along the way.

Based on the analyses conducted for the evaluation some of the issues to consider for continuous programme development include:

1. There is a perceived general lack of knowledge about the programme among referring practices. Stakeholders may need to give thought to how to create more visibility for the programme as well as increasing ownership among all stakeholders.
2. The most dramatic changes in the child's physical measurements occur within the first three months of the programme, with participants reaching a plateau during the second three month period. The Programme Team must consider whether this is expected and appropriate, or whether more efforts are needed to continue motivating children beyond the half-way point.
3. The referral process needs to be reviewed in order to ensure sustainability of the programme.

4. Stakeholders must reach consensus as to what the ultimate aim of the programme is (weight reduction vs lifestyle change).
5. If the programme chooses to continue self-monitoring and evaluating the programme, all data collection tools may need to be revised to ensure questionnaire sensitivity.

1. Introduction

Active Families is a programme designed to assist and support overweight and inactive children and their families to become more physically active and improve their nutrition. Active Families is a collaborative response to the needs of South Auckland families. The programme is run by Otara Health Incorporated in collaboration with Let's Beat Diabetes (LBD), ProCare, Total Healthcare Otara and SPARC. This programme is being evaluated as part of the LBD evaluation for Counties Manukau District Health Board (CMDHB).

1.1 Structure of the report

This report was commissioned by the LBD programme as a focused evaluation within the overall LBD evaluation. It was prepared by the Centre for Health Services Research and Policy, at the University of Auckland. The programme evaluation of the Active Families programme is presented in this report. The context in which the programme is being carried out will be explained in this section along with the aims and objectives of the evaluation. The second section provides a brief introduction to the Active Families programme, including the programme logic. The third section comprises an account of the methodology used to evaluate the programme. In the fourth section the results of the evaluation are detailed and the report concludes with a discussion of the results and some issues to consider in the fifth section.

1.2 Literature summary

It is well-recognised that being overweight or obese increases risks of experiencing both short and long-term health conditions (Ministry of Health 2008). Despite recent efforts to reduce the staggering incline in adolescent obesity prevalence, rates are continuing to grow, emphasising the need for a whole-of-population approach and the need to evaluate the efficacy of current intervention programs. In New Zealand, an estimated 29.2% of 2-14 year olds and 52% of 15-24 year olds can be categorized as overweight or obese according to the body mass index (BMI) measurement (Ministry of Health 2008). As stated by Timerio, Salmon and Ball (2004), combating physical inactivity and obesity in childhood and/or adolescence is not only important because of the associated health problems and health-risk behaviours, but also due to the propensity for such behaviours to develop into lifelong patterns.

In addressing childhood obesity, some interventions have created outcome measures that focus not on attainment of an ideal body weight, but on goals involving more general health behaviour changes. Current recommendations suggest that these goals include healthy eating, active living, and positive self-esteem (Flynn, McNeil, Maloff, Mutasingwa, Wu, Ford and Tough 2006). In a multiple intervention analysis, Peterson and Fox (2007) found that those interventions focusing on specific behaviour changes, such as decreasing intake of high fat foods, were more effective in decreasing adiposity than more complicated interventions. In particular, focusing on television watching, soft drink consumption, and making simple food behaviour changes have proved to be influential and significant variables of focus. Evaluation of various programme designs has found evidence to suggest

that interventions that integrate lifestyle changes, such as increased physical activity of the participants, are more successful. Important contributing factors associated with the success of interventions include addressing the following:

- Behavioural Outcome Measures;
- Readiness to Engage;
- Age-Specific Needs;
- Gender-Specific Needs;
- Target Specific Health Behaviour Changes;
- Multi-media Approach;
- Engage Parents.

It is widely accepted that children's behaviours are often moulded by their caregivers. In fact, one of the major causes of childhood obesity can be poor family dietary habits and activity patterns (Doak, Visscher, & Seidell, 2006; Timerio et al., 2004). In a qualitative study on African American weight-related beliefs and concerns in Chicago, parents admitted to having many obstacles towards properly feeding and providing their children with valuable physical activities (Burnet, 2007). Greatest among these challenges were the issues of not knowing enough about nutrition and parents not being able to control what their children ate because of their already-developed strong preference for high-fat food. Educating parents on what is healthy and how to shop for healthy foods is essential to the creation of a healthy home environment (Burnet, 2007).

Doak (2006) not only found that the three major types of interventions regarding weight-loss emphasise physical activity, nutrition, or a combination of the two, but also that it is how programmes explore healthy lifestyle topics rather than what topics they explore that determines the success of an intervention. By focusing on tangible goals, children can adhere to minor behaviour changes. For example, children report that weight loss is more feasible for them when they can make small incremental changes in diet and exercise, especially in an environment where they feel encouraged and not criticised (Borra, Kelly, Michael, Shirreffs and Geiger 2003). Additionally, a reduction in sedentary hours such as those spent watching television signifies a greater behavioural change embodying a healthier lifestyle. Not surprisingly, research has shown that children are more likely to participate in physical activity that is fun, social, and strongly emphasises learning and effort (Yin, Hanes, Moore, Humbles, Barbeau and Gutin 2005)

Although there is no clear pathway for effective intervention, evaluations to date indicate that the best pathway for marking a decline in childhood obesity is to change their health behaviours. Advocating change depends upon cooperation from the community, schools, parents, and involved youth. Cohesion of these groups and opening of communication between them is the first step to making great change. Additionally, issues that need addressing include transportation and competition from other afterschool activities, which have both been major problems for afterschool programmes to date. These factors are useful to consider during the development of after-school programmes as these factors could potentially improve the programmes' effectiveness.

1.2.1 Outcome measures

As discussed above, many programmes monitor behavioural outcome rather than weight loss in children. In some programmes, specific and weight-focused goals have shown to produce negative effects on participant success. In a study evaluating self-esteem changes in children involved in weight management programs, Cameron (1999) found that many participants suffered from embarrassment and feelings of failure as a result of the weekly weigh-ins in their weight loss intervention. Not only did their self-esteem suffer, but there were no significant changes in their BMI measurements. In this case, focusing on weight loss was unsuccessful, even detrimental.

Despite the wide recognition of behavioural outcome measures in evaluating childhood obesity initiatives, clinical outcome measures are still often used to determine direct effects of the intervention on obesity / overweight status. Weight and height are routinely measured in most clinics and are simple data to collect for many programmes as long as standard measures and procedures are used. BMI charts by age and gender have been developed by the Centers for Disease Control and Prevention (CDC) in the United States of America (Kuczmarski 2000), and international charts have also been developed using data from several different countries (Cole, Bellizzi, Flegal, Dietz 2000). Other indicators include skinfold thickness and waist circumference. Skinfold thickness is recognized to have severe limitations, given the expertise required to obtain reliable measures across time and participants. Waist circumference on the other hand has attracted recent attention as an indicator for fatness and health risks in both children and adults (Krebs, Himes, Jacobsen, Nicklas, Guilday, Styne 2007). Ultimately, the choice of outcome measure, whether clinical or behavioural, depends on the specific goals of the programme as well as the length of time in which the outcomes are expected to be achieved.

1.3 Let's Beat Diabetes

Counties Manukau is currently experiencing a growing epidemic of Type 2 Diabetes. More than 12,000 people have been diagnosed with diabetes and a similar number remains undiagnosed. The number of people with diabetes is estimated to more than double over the next 20 years (Let's Beat Diabetes Five-Year Plan, 2005). The LBD's five year plan aims to address this growing epidemic through initiatives that fall within 10 Action Areas. The Active Families programme is part of the Strengthening Health Promotion Co-ordination and Activity Action Area within LBD and incorporates 'whole society, whole life course, whole family whanau' approach that is at the core of the LBD programme.

1.4 Healthy Eating Healthy Action

Healthy Eating Healthy Action (HEHA) is a national policy framework to bring about changes in the environment in which New Zealanders live, work and play as this relates to nutrition, physical activity and obesity. HEHA reflects the Government's plans to improve nutrition, increase physical activity and reduce obesity throughout New Zealand (Ministry of Health,

2004). LBD shares the HEHA aims and objectives and acts as a vehicle for supporting and implementing the HEHA strategy in Counties Manukau.

The primary goal of LBD is to promote long-term sustainable changes to prevent or delay the onset of Type 2 diabetes, slow disease progression, and increase the quality of life of those individuals diagnosed with diabetes. As a consequence many of the LBD interventions aim to support local communities to modify their health risk behaviours and ultimately increase physical activity and improve nutrition. As the Active Families programme is designed to assist and support overweight and inactive children and their families to become more physically active and improve their nutrition, it is an initiative that fits within the LBD programme as well as the HEHA framework.

1.5 Aims and objectives of the evaluation

The Active Families evaluation aims to support capability development by:

- Identifying Active Families processes that enable and constrain its effectiveness and impacts.
- Contributing to building Active Families evaluation readiness, by supporting Active Families to collect and utilise evaluation data for use in its planning, decision making and actions and providing tools that can be used in conducting evaluation.

More specifically, the objectives of the evaluation are to:

- Collaborate with Active Families to develop and conduct a process evaluation that meets the needs of the programme providers and key stakeholders, as well as the overall LBD programme.
- Describe and evaluate the implementation of the Active Families programme
- Monitor outputs and outcomes of the Active Families programme through analysing existing programme data and gathering additional data specifically for the evaluation.
- Support the Active Families programme to develop its quality management and capability to support the growth and development of the programme.

2. Active Families Programme

The Active Families programme is a collaborative response to the needs of South Auckland families. The programme is run by Otara Health Incorporated in collaboration with LBD, SPARC, Total Healthcare Otara and ProCare. This section will describe the programme in more depth.

2.1 Programme objectives

The specific objectives associated with this programme were:

1. To work through PHOs in the Counties Manukau region to implement effective identification, referral and feedback systems for the target population and to establish linkages with existing PHO physical activity and nutrition programmes.
2. To increase the opportunities for Maori, Pacific and low income children and their families to become involved in a physical activity and nutrition programme for the enrolled populations of the participating PHOs in the Counties Manukau region, with particular focus on Otara, Mangere and Manurewa.
3. To improve knowledge of healthy levels of physical activity and healthy eating among referred families.
4. To increase the level of physical activity undertaken each week for referred individuals / families to at least the SPARC recommended daily activity levels for children and adults, and that the increased physical activity is sustained three months post programme termination.
5. To improve nutritional intake for families participating in the Active Families programme.
6. To increase intersectoral collaboration by engaging with other stakeholders, regional strategies and community groups to link families to sustainable long term activities.
7. To ensure that the programme supports the LBD philosophy by building community capacity and taking a 'whole society, whole life course, whole family whanau' approach.

In order to reach these objectives, Active Families programme staff engaged with other stakeholders, regional strategies and community groups to ensure that the programme was acceptable and accessible to the target population and was well coordinated with other relevant approaches in the region.

2.2 Programme delivery

Families were referred into the programme originally through General Practitioners and Practice Nurses from PHOs contributing funding to the programme, although this later expanded to include School Nurses and other referrers. Referrals that met the programme criteria were contacted by the Active Families team, who then worked face to face with the family to outline goals, administered the evaluation tools and followed up the family throughout the programme. Physical measures were taken at zero, three and six months to assess changes. The programme ran for six months, and new families were given the opportunity to join the programme at any time through a rolling referrals system. All

sessions included a physical activity and a nutrition component. Caregivers were encouraged to participate in physical activity alongside their enrolled child, and as a core part of the programme were also involved in nutrition workshops specifically designed for caregivers. Children were given information and nutritional advice in the form of ten top tips displayed around the venues and used as target points during physical activity. These tips were consistently reinforced both verbally and visually throughout the physical activity sessions and other programme activities.

2.3 Programme logic

Below is a diagram of the programme logic, showing the links between programme inputs, activities, expected outputs and outcomes. This diagram represents a common understanding of what the programme intended to achieve, the means by which this happened as well as the appropriate measures of change. The boxes at the bottom of the diagram represent monitoring and evaluation questions related to the processes of project implementation as well as the outcomes of the project. Methodologies and data sources are discussed in the following section.

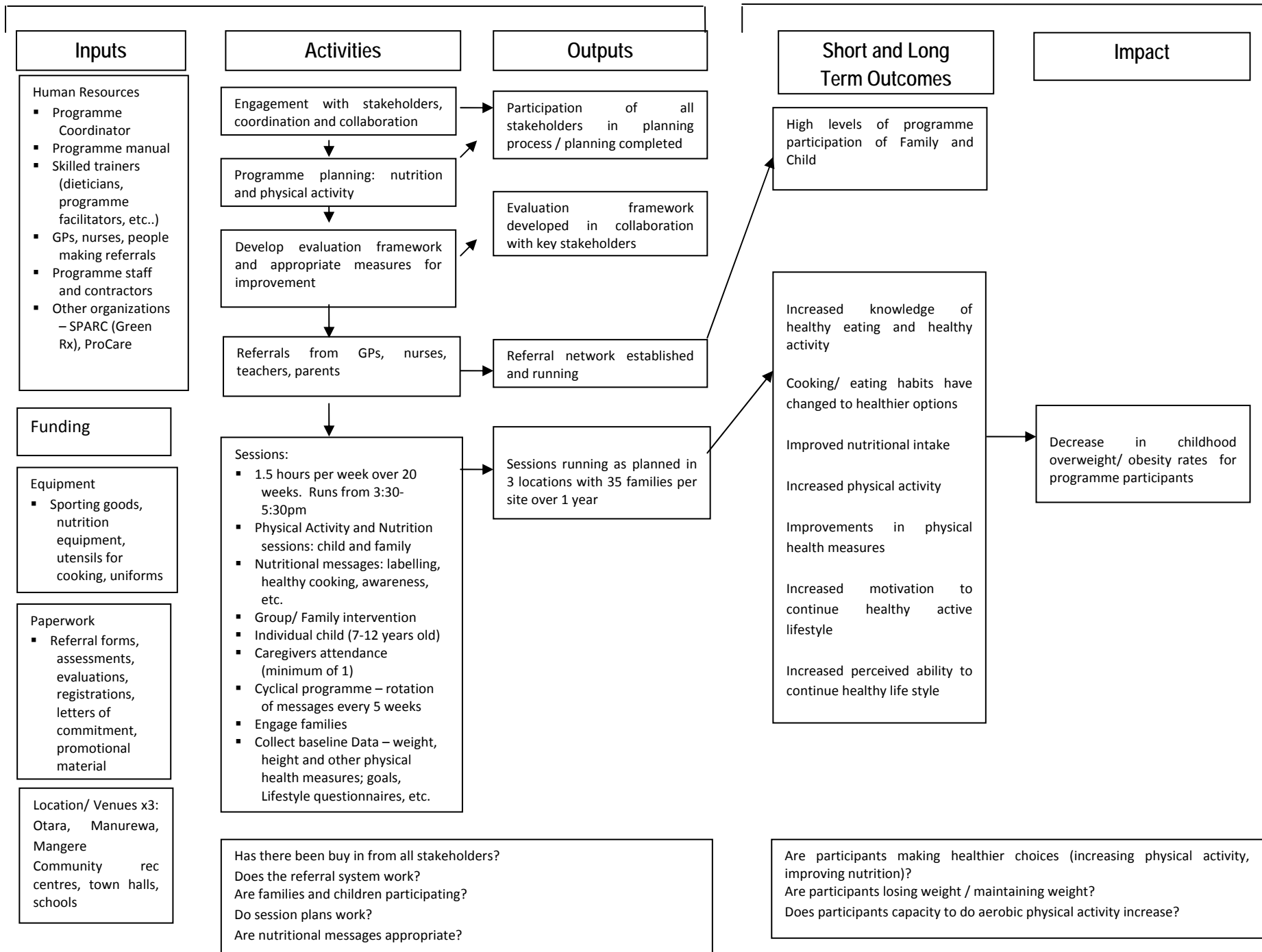
Inputs associated with the Active Families project included the human resources, manuals, referral forms, funding, equipment, and established venues for programme activities to take place. Under activities, the Active Families programme planned to engage with key stakeholders to coordinate initiatives and to ensure buy-in to facilitate implementation. Together with stakeholders, programme planning would take place; this included defining appropriate messages, activities and measures of success. Referral networks would then be established, and sessions designed. Once programme sessions started running, participants would participate in the programme for a duration of six months. The expected programme outputs included: stakeholder participation, programme and evaluation frameworks developed, referral networks established and sessions running as planned in three locations with 15 families per site. Expected outcomes were: a high level of programme participation, increased nutritional knowledge, healthier nutritional intake, increased physical activity and physical fitness levels, and increased motivation to continue active lifestyle. It was expected that the combination of these outcomes would lead to sustained healthy eating and healthy level of physical activity, which in the long term would contribute to a decrease in childhood overweight / obesity rates in the target population.

It is important to notice the arrows in the diagram, which indicate causal relationships between factors identified. During the evaluation process, if products or outcomes are not as expected, it is important to assess whether the assumptions made while constructing the programme logic are flawed or incomplete. This will be further discussed in section 5.

Figure 1: Active Families Programme Logic

Process

Outcome



3. Methodology

Programme evaluation is designed to support programme development through evaluating different components of a programme. Evaluation is useful for finding out whether a programme is being implemented as intended and whether what is being done works. Evaluation is also important for maximising the potential of a programme and ultimately the benefits to the community.

The Active Families programme evaluation is based on the Centers for Disease Control and Prevention (CDC) framework for the evaluation of public health programmes. A mixed methodology was proposed as the most appropriate means of successfully implementing the evaluation. Mixed methods inquiry deliberately pulls together different research methods designed to collect different kinds of information, thus, utilising both qualitative and quantitative methods of data collection and analysis in parallel (Greene and Caracelli 1997).

In order to achieve the objectives set out in Section 1.5, the evaluation will utilise three key methods of data collection which include a quantitative database analysis, focus groups and key stakeholder interviews. These methods are described in more detail below.

3.1 Evaluation questions

In order to guide the evaluation, the following questions were outlined in collaboration with the Active Families Programme:

Process evaluation

1. Has there been buy in from all stakeholders?
2. Does the referral system work?
3. Are educational messages appropriate?
4. What are the barriers and facilitating factors affecting participation?

Programme monitoring

5. Are sessions being implemented according to plan?
6. Are referred participants attending the programme regularly?

Outcome monitoring

7. Have participants improved in their perceived ability to follow healthy eating and healthy action?
8. Have participants increased their level of physical activity?
9. Do participants improve capacity in aerobic physical activity measures?
10. Have participants improved their nutrition?
11. Have participants lost weight and girth?

3.2 Data collection

This section outlines the methods that were used to collect data for the evaluation. The three key methods included a quantitative analysis of programme outcome data, focus groups and key stakeholder interviews.

3.2.1 Focus groups

A total of ten focus groups were conducted with participants of the Active Families programme to provide in-depth information about their experiences of being involved with the programme. The focus groups were held at the programme sites, and were held separately for children (n=5) and caregivers (n=5). Most focus groups lasted approximately 60 minutes. The focus groups identified additional information around physical activity knowledge, behaviour and attitude. Conducting focus groups with both participants and members of their family matches the philosophy of the Active Families programme, where lifestyle changes are aimed at the whole family. The process was intended to be empowering and to encourage communication about physical activity and other lifestyle changes. Refer to Appendix A and B for Caregiver and Child Focus Group Guides.

3.2.2 Key Stakeholder interviews

Seven key stakeholder interviews were conducted to provide insight into the experiences of those involved in Active Families from a key stakeholder perspective. This information is important to understanding current process and programme implementation, as well as the engagement and experiences of different stakeholders. The interviews lasted no more than one hour and were conducted at a place and time convenient for the interviewee. The interviews identified key stakeholder perceptions of strengths, risks and areas for growth or development; along with any noted effects of the programme. Refer to Appendix C and D for Interview guides.

3.2.3 Quantitative data

Data collected by the Active Families programme was analysed to identify participation, programme products and outcomes of the Active Families programme. This data was collected by the Active Families Coordinators and was provided to the evaluation team for analysis. The data included:

- Socio-demographic variables, such as age, sex, ethnicity, etc.
- Child lifestyle questionnaire items (see Appendix E) for months zero, three and six. This questionnaire consisted of 16 questions measuring the enrolled child's nutritional knowledge, habits, attitudes as well as levels of physical activity.
- Family lifestyle questionnaire items (see Appendix F) for months zero, three and six. This questionnaire consisted of 14 questions measuring the caregiver's nutritional knowledge, the family's nutritional habits and levels of physical activity.
- Outcome measures for months zero, three and six; including weight, height, girth, step-ups and walk/runs.

3.3 Data analysis

This section explains how data was analysed for the evaluation.

3.3.1 Qualitative data

Thematic analysis was used to identify the issues that the key stakeholders and participants identified as relevant to the Active Families programme. Comparisons of responses ensured that the findings reflected the views of key stakeholders and participants while also allowing for any interesting or unexpected data to be shared. The interview and focus group findings were discussed with the interviewers and evaluation team to ensure inter-rater reliability.

3.3.2 Quantitative database analysis

A statistical comparison of quantitative data was conducted using the software Statistical Package for the Social Sciences (SPSS version 15). Paired sample t-tests were conducted to compare baseline (month zero) measures with month three measures, and also to compare baseline measures with month six measures. Results were considered statistically significant when they reached a p-value of less than 0.05.

Below is a description of the possible responses to the items in the child lifestyle questionnaire. In order to conduct the above stated comparisons, the child questionnaire items were scored. Numbers in parentheses represent the score given, and should be used in the interpretation of the results presented in section 4.

- Questions 1-3 have as possible answers: never (1), some days (2), most days (3), every day (4).
- Questions 4 and 5 ask for number of servings and were not scored.
- Question 6 has as possible answers: never (1), sometimes (2), often (3), all day (4).
- Question 7 has as possible answers: eat as much as you like (1), eat regularly but not so much (2), eat very little (3), don't know (4).
- Questions 8-11, 13, 16 have as possible answers: strongly agree (4), agree (3), disagree (2), strongly disagree (1).
- Questions 14 and 15 are time variables and have as possible answers: 30 minutes (1), 1-2 hours (2), 2-4 hours (3) 4 hours or more (4).

Below is a description of the possible responses to the items in the family lifestyle questionnaire. Numbers in parentheses represent the score given, and should be used in the interpretation of the results presented in section 4.

- Questions 1-4 have as possible answers: never (1), some days (2), most days (3), every day (4).
- Question 9 is time variables and has as possible answers: 30 minutes (1), 1-2 hours (2), 2-4 hours (3) 4 hours or more (4).
- Question 12 has as possible answers: eat as much as you like (1), eat regularly but not so much (2), eat very little (3), don't know (4).
- Questions 13 and 14 have as possible answers: strongly agree (4), agree (3), disagree (2), strongly disagree (1).

4. Results

This section outlines the results from the three methods of data collection which included focus groups with parents and children, key stakeholder interviews and a quantitative analysis of programme outcome data.

4.1 Focus Groups with Parents

Parents were asked a range of questions regarding their participation in the Active Families programme and the impact of that participation on their lifestyle. Topics of discussion included:

- motivation/barriers to attending the programme sessions
- enablers/barriers to making changes to their lifestyle and sustaining those changes
- what changes they saw to their (or their children's) physical aspect, or knowledge, attitude, or behaviour with respect to healthy eating and exercise, or changes they saw in their family and friends
- how the programme impacted parts of their life other than healthy eating and exercise
- comments relating specifically to the programme and its implementation

These topics and the common themes are described in detail below.

4.1.1 Attending the programme sessions

Participants were asked about their attendance to the programme sessions. Some of the topics discussed included the parents' perception as to the purpose of the programme, which affected their motivation for wanting to attend the sessions. Barriers that discouraged attendance and participation were also discussed.

Perception of purpose of the programme

Many participants discussed what they perceived to be the purpose of the Active Families programme, which affected their motivation for becoming involved in it. Parents viewed the programme's purpose to be around weight-loss for their children, as this was one of the main reasons they were referred to the programme in the first place.

She [paediatrician] actually said my boy needed to go on the programme to get his weight down.

Other parents noted that their children had more general health issues, and that this was why they had been referred to the programme. In these cases, the programme provided support around weight loss which improved their child's other health issues.

With his weight loss, he can learn much more better. So I thought that would have been good, because he's a special needs boy. And I thought that would benefit him.

Motivation for wanting to attend the weekly sessions

Parents were asked about their motivation to attend the programme sessions. While some of these reasons were driven by their perception as to the purpose of the programme, they also discussed

other reasons for wanting to attend the sessions. These reasons were not necessarily viewed as the explicit purpose of the programme, but were aspects that the programme provided that they found appealing (e.g. social support for their children).

The most common reason given for wanting to attend the sessions initially was for the weight and health of their children. Many parents noted that their children were overweight, and the programme provided an opportunity to lose weight and become more active.

Our two daughters are quite chubby, so we were looking around for some help just to get their weight down.

Other parents also noted that the programme would be able to provide social support for their children, and meet other children similar to them:

They're all overweight, because when we first came, no one got left out. Like all the kids are the same.

A few participants mentioned that, in addition to the reasons described above, they wished to attend the programme for their family's health and wellness, including their own.

Like me and my children, learning what's supposed to be, what we're supposed to do. Like for nutrition value, exercise value, and just participating as a family. It's like a family thing as well.

Parents also discussed their reasons for continuing to attend the sessions. These reasons were mainly around the social support that the programme provided, not only for their children, but for themselves:

It was for my daughter. And second thing, like I also love to go there because like I mix around with other people and have some fun there.

Other parents discussed how the programme provided weekly exercise and activities for their children, and because the children enjoyed them, they came back every week.

My son actually enjoys coming here. So whatever he wants to do, and what's good for him, well I'll support him.

Barriers that discouraged weekly attendance and participation

Parents were also asked to discuss any barriers that they found to attending the sessions themselves. The most common barrier was time. Many participants noted that they would normally be at work during the programme session times, and that it would sometimes take some organization to get the time off from work to attend the sessions:

With myself, I normally finish at 4, but I asked my boss to start at 7 and finish at 3 on Tuesdays so I can get my son here by 3:30.

Other parents discussed how the time of the programme prevented the other parent from attending the sessions, or that they were only able to attend the last part of the session. Other barriers included lack of motivation or tiredness when the sessions came about, as it was at the end of a work day. Another barrier described by a few participants was lack of support from family members,

both in general interest in the programme, and specifically in support to bring the children to programme. Some family members split the care-giving job with other family members, and this diffusion of responsibility caused some debate as to who would be responsible for attending the programme sessions:

I'm a busy man. I do too much work during the day and help the school and come up and bring the kids here. Sometimes I'm really tired, while this is my daughter's job.

4.1.2 Enablers to making lifestyle changes

Parents discussed the various enablers to making the changes to their lifestyle that the programme promoted. The most commonly discussed enablers were the support that the programme provides and support outside of the programme from family members, though independent environmental enablers were also noted.

The participation of families during the sessions encouraged the lifestyle changes through the week, particularly with respect to physical activity for the children:

It's easier for the kids to be physically active now because they come to the programme and see the kids and they get motivated. And so that's what made it easier for them to be physical.

The social support provided by the other programme participants also provided encouragement during the week, especially as some participants kept in contact with each other between sessions. The activities during programme session were also mentioned as an enabler to change, as they did not require a lot of equipment. Participants noted that this meant that the children could play these games in their own environment without any special equipment, and this promoted physical activity during the week.

Some parents noted that their children spoke to other family members about their participation in the programme. By having other family become aware of the lifestyle changes the participants were trying to implement, they were able to support them in those changes at home.

I've got a sister who always wants me to take him to the programme and make sure he's doing his daily activities, exercises.

Participants also noted that by completing the programme with their family, their children would hold them accountable for healthy food choices during the week, as well as encourage them to do physical activity with them.

Participants also discussed some environmental enablers to making lifestyle changes. These included the messages promoted in the media around healthy eating and increased physical activity, and a recent media story about the content of pies, which encouraged children to not consume pies. Other enablers to lifestyle change that were mentioned included growing a vegetable garden and the expensive cost of fast-food.

4.1.3 Barriers to making lifestyle changes

Parents also discussed the barriers they found to making lifestyle changes. These barriers affected changes to healthy eating as well as increasing physical activity.

With respect to healthy eating, one of the most common barriers mentioned was lack of family support, and cultural habits around eating large portions with extended family.

Their Dad and I aren't together...every time they would go to him, all weekend they'd get bakery for lunch, they get takeaways for dinner, they get McDonald's for breakfast

When there's family that comes around, and we will put on food that we don't normally. Would sit down and have a big meal and eat the horse and the rider.

Other barriers to making healthier food choices included the increase in food preparation time for healthier options (especially when work schedules or hunger required the preparation of meals to be quick), the cost of healthier food, the convenience of 'fast food', and motivation to change old habits. The taste of healthier food options was also mentioned:

One of the biggest barriers is, everything that's really bad for you is really nice [tasting].

Barriers to making lifestyle changes to levels of physical activity were also discussed. Similarly to eating healthier, the lack of support from family was listed as a significant barrier. Lack of time to engage in physical activity with the child participants also contributed to this.

He wants to get up and play, and in the house everyone's doing their own thing or gone to work or like doing laundry and stuff, and nobody wants to go get active with him.

Other barriers to increasing physical activity included lack of motivation to exercise without the structure and support of the programme session. Environmental barriers were also noted, as safety of the neighbourhood was sometimes a concern. Some parents were constrained by their schedule, and could not take the time to monitor their children in an environment that was safe for physical activity.

Ride a bike. Go for a walk. Which is all very well but kids can't do that themselves. Not in our environment... the time of the day is another thing. Maybe having a walk together in the weekend maybe. But not during the week.

Some parents noted that while their children may like to be a part of a sports team outside of the programme, lack of self-confidence and the cost of joining the sports team were both barriers to engaging in physical activity in those circumstances.

4.1.4 Changes seen in participants

Parents discussed the types of changes that they saw in their eating and physical activity as a result of participating in the programme. These were changes that they noticed not only in themselves, but in their children, and ranged from changes in physical aspect, to changes in knowledge, attitudes, and actual behaviour.

Changes to knowledge

Parents were able to identify changes to both their own knowledge and their children's knowledge as a result of the programme.

The most commonly reported changes to their own knowledge were around nutrition and healthy eating. Most of this discussion revolved around learning about food content and label reading. Learning new ways of cooking and preparing food was also discussed. One participant did note that learning about breakfast and bread-types was an importance piece of knowledge for them. Another parent noted how their knowledge in physical activity had changed as a result of their participation in the programme, and they had a new appreciation for exercises, stretching, and being creative in doing physical activity.

Parents also noted changes to what their children knew. These changes were around healthier food choices, and knowing what foods were healthy.

Changes to attitude

Participants noted that some of their attitudes had changed as a result of their participation in the programme. All of this discussion was around attitudes towards nutrition rather than physical activity, though there was one comment about attitudes towards health in general.

Parents noted that their attitude towards vegetables and having their children eat vegetables had changed. One parent was surprised to realize that their children liked vegetables, while another realized the importance of vegetables to their child's diet:

With the meals there was no veggies. And I'd have veggies and they wouldn't. But as far as I was concerned it was ok, just as long as they're eating. Not realizing that what they're eating in the long run could open them up for diabetes.

Other parents noted how their attitude towards the quality of food had changed, and they were more aware of the kind of food they were buying. Another participant related this to health more generally:

You have to put fuel in the car to be able to get its full performance. And so is the body – you have to be able to put good things in to get good things in return.

Parents also noticed that there were changes to the attitudes of their children in the programme. Most of these attitude changes were with respect to food and children had more positive attitudes towards healthier foods, and less positive attitudes towards unhealthy food:

With my son, he's more cautious with what he eats, telling me after school how many glasses of water, and what he eats.

Behavioural changes

Participants discussed some of the behavioural changes they had seen in themselves as a result of the programme. Most of these changes were around nutrition, though there were some around physical activity.

Most of the changes discussed were around food choices and how these had changed. Participants noted how they read labels more now while doing the shopping, and tried to make switches to certain foods, such as buying brown bread instead of white.

Other participants noticed how their style of cooking had changed, using olive oil instead of butter, and draining the fat off from meat. Some discussed how their serving of meals had changed, with parents serving plates of food rather than letting the family self-serve, and limiting second-helpings. Some parents focussed on this method in their home, saying that while they still ate favourite meals that were not very healthy, their portions were limited, and these meals were not as often.

Many participants discussed how they had changed from eating takeaways as well. Some parents had cut out takeaways completely from their family's diet, while others noted that their family was not eating them nearly as often.

While most of the discussion was around family eating, some participants focussed on the nutrition of their children's school lunches, while one noted that their own personal diet had changed to being more healthy.

Some parents noted behavioural changes in areas other than nutrition though, and discussed how they tried to spend more time with their children now.

Well I'll go out more often, go for walks with my boys... yeah, I try and spend time with them.

Another participant noted that they no longer drove their children to school, and now when their children walked to school, they joined them for the exercise.

Parents noticed behavioural changes in their children as well. These changes were in both eating habits as well as exercise habits. Many parents noted that their children were more active, and played games outside more rather than watching TV. Other parents said that their children were more involved in sports at school, and that they walked to school rather than taking the bus.

Participants also discussed the changes in eating habits they saw in their children. Some children were eating breakfast regularly, or choosing healthier snack options when at home or at the store. One parent noted that their daughter read labels at the store, and would stop the parents from buying certain foods:

Like now she's stopping me not to buy fattening food. And she's stopping me not to buy pies and stuff like that.

One parent noticed that their child was making their own healthy lunch to take to school, rather than buying food there. Many participants noticed that their children did not drink as many fizzy drinks, and while it seemed that this change was initially brought about by the parents, the children became less interested in consuming fizzy drinks themselves.

Physical changes

Parents noted that their children had undergone some physical changes as a result of their programme participation. Many of the parents noticed that their children had lost weight, or said that family members had noticed a weight-loss. Some parents focussed on a shape difference as their child's waist measurement had decreased. Other parents noted changes in general health and fitness for their children, and even some children's complexions had improved as a result of a healthier lifestyle.

She's lost some weight and she's lost some inches. She's fitter.

Changes to family and communities

Participants also noticed that their programme participation was affecting their extended family and communities as well. Some parents noted that when they told family members about their involvement in the programme, the rest of the family changed the types of snacks they offered to their children, and so came on-board with the nutrition changes the parents were trying to encourage. Sometimes the family members were inspired by those changes themselves, and stopped eating as many sweets or takeaways.

And the daughter herself eats crap from morning to night, basically. And I was interested to hear her the other night just saying... 'I'm going to stop eating this stuff and I'm going to go to the gym'.

Another change that participants saw in their families was that the family was more likely to spend time together doing physical activity or playing a game.

Because usually after dinner we just watch TV and stuff, but me and the kids would just jump outside, play a game of cricket or something, which we didn't do before.

Some parents noted that their involvement in Active Families and discussing it with family and friends encouraged others to get interested in the programme and register for it themselves.

Yeah, I have a cousin, and she said that she wanted to bring her kids as well.

4.1.5 Other areas impacted

Parents commented that their involvement in the programme has affected other areas of their child's lives in addition to their nutrition and physical activity. Some participants noted that their children were more outgoing and less shy with other children as a result of their participation in the programme sessions, and there was less fighting between the siblings.

My kids used to be shy to meet other people, but now they're alright. And my twins used to fight a lot but not anymore.

One parent said that their child was doing better in school and answering more questions, and this may be due to having breakfast regularly now. Another parent noted that their child was often ill in the morning and did not want to attend class, though this has changed:

Every morning 'Mum, my tummy's sore. I don't want to go to school'. Now it's gone. it's really good. And the other thing, she gets up and she gets ready, and after school she comes and she just does her homework.

4.1.6 The Active Families programme

Participants also had some programme-specific comments. Many of the parents thought that the programme was a good one, and were happy that they were involved in it. They noted that the facilitators were very supportive, and that their children were fond of the physical trainer. Parents also noted that the focus on family made them get involved in the sessions as well, which encouraged them to get exercise and interact with their children.

Participants noted that the nutrition information that was provided during the sessions was particularly useful:

Yeah, the angle she approached it was really good, because she knows what Pacific habits are.

There were some suggestions for improvements to the programme as well. Many of the participants thought that the programme would be more effective if it was held twice a week, or went for more than 6 months. In this way, the lifestyle changes and healthy habits could be supported more through the week, and the changes were more likely to be sustained after the programme finished.

The children, I mean they look forward to Thursday, but if they have it twice a week, they'll build a routine-type thing.

Other suggestions included more resources for the sessions, such as an Active Families facility, or more activity equipment (though parents also noted that not having equipment encouraged the children to be creative, and they were able to recreate the activity for themselves during the week without the need for special equipment). Other participants noted that a greater variety of activities during the session would also be beneficial.

Other resources that were mentioned included a book that was circulated during one of the programme sessions. The book had a nutrition section, though some felt that more specific examples could have been helpful. Some felt that the physical activity section of the book contained exercises that were inappropriate for children to complete during the week as they required supervision. However, parents were supportive of having 'homework' or weekly goals that the children could accomplish between sessions. Some participants discussed how an incentive system in the form of a star chart had once existed for children to accomplish specific goals, though this had disappeared according to them without notice, and disappointed some participants.

Some parents noted that more tips around healthier snacks would also be helpful. One parent discussed how during one session they brought along healthy snacks and shared those with others, which they enjoyed doing and would have liked to repeat in other sessions. In this way, parents and children could learn about different healthy snacks:

We did that in the session and we were able to bring it and share with the other children and tell them what we put into the ingredients.

One last suggestion for improvement was around providing advertising for the programme, or incentives for the participants that could also advertise the programme in the community. Parents suggested that the programme could grow by advertising in schools, or by working with schools more:

Yeah I'd recommend it to the schools. Get the families involved, because at school they've got more friends with them so friends can support each other too. So know what they're eating, and then have it after school with the parents.

One parent suggested that by providing incentives like hats or scarves to the participants they could also advertise the programme to their friends and communities:

Other people can see that you've got this... something, and ask about it, and then through word of mouth it gets around that these programmes are available. It's amazing how many people don't know that these programmes are available out there.

In other comments, one participant mentioned how they had a language barrier, and that they had not understood all the messages discussed in the session, but was too ashamed to ask for clarification from a facilitator.

Many participants noted that the Active Families programme provided a supportive social environment for the participants, though this was not generally perceived to be a main goal of the programme. Parents noted that this was an important aspect for their children as they got to experience being a part of the group:

He loves coming here to meet his mates.

Because they're all overweight....they're really comfortable with each other.

Some parents also noted that the programme provided a similar opportunity for them to meet other parents in similar situations:

Having the other parents there, that's really supportive. Knowing that you're not just the only person.

4.2 Focus Groups with Children

Children who participated in Active Families were also asked a range of questions regarding their participation in the programme and its effect on their lifestyle. The topics of discussion were similar to those of the parents, and the common themes are described below.

4.2.1 Attending the programme sessions

Children were asked about their weekly participation in the programme and their thoughts on the sessions themselves. They discussed their perception of the purpose of the programme, and how this was related to why they were referred to the programme in the first place. The participants also discussed the reasons why they wished to attend the sessions each week, as well as reasons that discouraged them from wanting to attend the sessions.

Perception of purpose of the programme

The most common perception of the programme's purpose was tied to weight loss. Participants discussed how they perceived themselves to be overweight, and this was the reason why they attended the programme:

Because I'm overweight and because go to the programme... to lose weight.

At times there was some embarrassment associated with being a part of the programme because of its perception as a weight-loss programme, and the concern that class-mates or friends outside of the programme would tease the participants for their involvement. One participant identified the programme as being more generally health related, though still noted some embarrassment in being associated with it:

They'll think, 'oh gosh, he has to go to a health programme'.

Another participant noted that while there was some embarrassment initially with being referred to the programme, once they got into the activities this was not as much of an issue.

Motivation for wanting to attend the weekly sessions

Participants discussed their various motives for wanting to attend the programme sessions. The most common reason for attending was enjoying the games that were played. Some participants mentioned their desire to get fit and have fun. Others discussed how they were motivated to come because they were excited to see the programme facilitators:

When we first came here and they [programme staff] just told us a lot of stuff about it we felt quite excited to come back here. And we're quite excited because they were nice people as well.

Another commonly discussed reason for wanting to attend the sessions was the opportunity to engage with their parents during the sessions:

And I like it when they [parents] take part of the programme too, like they play with us.

Barriers that discouraged weekly attendance and participation

Participants also discussed various reasons why they felt discouraged from attending the programme sessions. Common reasons given were feeling tired at the sessions as a result of the activities, and that some of the games became repetitive or were played for long periods of time, and some of the participants became bored:

I didn't use to like coming because we used to play touch a lot and a lot and I just got very bored of it.

The poor weather over the preceding months was also mentioned, as this prevented the participants from playing different games outside. This problem was associated with a particular venue that had limited space indoors. Another theme discussed was the reluctance in possibly being told off during the sessions, especially in front of their friends. Other participants discussed how their family involvement and presence affected their participation, though this varied. One participant was

embarrassed by their father's active participation in netball and then missing shots, while another participant was discouraged when their mother could not participate in the activities:

Like um, sometimes I feel a little bit frustrated when my mum and dad aren't here. Like in the room.

4.2.2 Enablers to making lifestyle changes

Children also discussed the various enablers to making the healthy eating and physical activity lifestyle changes that the programme encouraged. Most of the discussion was around the various enablers to increasing physical activity outside of the programme, and there was less discussion around enablers to healthy eating.

The factors that enabled changes to physical activity in the participants' lifestyle included becoming more familiar with different physical activities, and performing the activities from the programme sessions during the rest of the week, thus making the physical activity more habitual. Participants also noted how they discussed the programme activities with their extended family and friends, and this also helped them increase their physical activity levels during the week:

So you, all your friends can play that too... We learned a lot of new games.

Participants discussed how they talked to their immediate family members about the activities at the programme sessions, and felt that the family support encourages the lifestyle changes:

If they [parents] don't come here they won't be more active, and it just doesn't feel good when they don't come...Shouldn't they be healthy too?

The discussion around enablers to healthy eating was more limited, though participants did discuss their favourite vegetables, and how eating more fruit and veggies has helped them improve their fitness levels. An unexpected environmental enabler was also discussed, as a recent media release on food safety caused many of the participants to mention how they had given up pies. Even though this was obviously a factor external to the programme, it proved most effective in deterring participants from this particular food item:

There was a mouse in the pie... I don't like pies anymore. I don't eat them.

There was also discussion on what factors would enable the changes to be sustained after the programme had finished. Most of this revolved around plans for becoming involved in sports teams or activities after the programme has finished:

I tried out for this basketball thing but it was too physical for me. And so now after the programme's finished, I'm going to try and go back into the basketball.

4.2.3 Barriers to making lifestyle changes

The child participants discussed the various barriers that existed that discouraged them from making changes to their diet. Some of the barriers to diet changes included the difficulty in changing eating habits, such as eating less at meals, and not liking the taste of some vegetables.

The hard thing is that all the healthy foods, some of them are yuck.

The other main barrier to making dietary changes was around the social support in making those changes. Participants did not always talk to their family and friends about the programme; some of them because they were unavailable when the participants came back from programme, or for fear of being made fun of. Thus they did not have this source of support to make healthy choices during the week. Participants also discussed how it might be difficult to sustain the changes even if they had been successfully made. Most of this discussion was around avoiding being tempted when with friends who are eating unhealthy food:

Well if you're not allowed to eat something, your friends eat it in front of you, it's quite tempting.

One participant mentioned how there was the possibility of joining a netball team to continue with the increased physical activity, though the cost of joining the team was a barrier for the parents helping their children to pursue that option.

4.2.4 Changes in participants

The child participants discussed the changes that were a result of the programme, including changes to their knowledge around healthy eating and exercise, changes in their attitudes, behavioural changes, physical changes they saw in themselves, and changes they saw in their family as a result of the programme.

Changes to knowledge

The changes in knowledge were in respect to food and nutrition, rather than physical activity. Participants discussed how they learned about fat in foods through a chart that was given to them during the programme. They also learned about breakfast cereals and which ones were healthier than others. Children also discussed overall portion size, and the proportion of types of foods on a plate (e.g. "Half of veggies").

Changes to attitude

The changes in attitude that the children discussed were with regards to both physical activity and nutrition. These attitudes were generally positive, with participants reporting that the increase in exercise was good, and made them "more sportier...more active". Attitudes towards healthy food was a bit more mixed, with some participants noting that healthy food could still taste good, while other participants missed their old diet:

Sometimes I like junk food.

Behavioural changes

Most of the discussion around the changes resulting from the programme was around the behavioural changes that the participants had made. Both behavioural changes to physical activity and nutrition were discussed. Some participants discussed how they did not eat certain foods any more, though this was usually also tied to a change in attitude regarding that food:

I don't like pies anymore. I don't eat them.

Have you heard of the Big Bikkie ice-cream? Yeah, well I used to eat that... Now, I've only eaten it about twice. I don't like it anymore.

Other participants said that their changes around nutrition involved a decreased portion size, and increased fruit intake. Others discussed how they have started to have breakfast regularly as a result of the programme, and how their lunches for school – that they themselves made – had changed:

Sometimes we had unhealthy lunch, but now we have healthy lunch.

The participants also noted changes to physical activity as a result of the programme. This included an increase in the amount of sports they performed, as well as an increase in the amount of active play time compared to before:

We ride our bikes a lot down the street.

Participants were also aware of physical activity that they did casually during the day, and how this had changed:

We walk to school now...[before] we were always in the car.

Physical changes

Some participants noted that they had seen physical changes to themselves as a result of their participation in Active Families. Some of these changes were described as changes to body shape or weight:

I lost four inches...in my stomach and I grew heaps taller

However, most of the discussion was around changes to fitness levels, as many participants felt that this had improved with the programme.

My weight has gone up but my fitness level has gone up too.

Changes to family and communities

Participants noted changes to their immediate and extended family as a result of the programme, though the changes discussed were mostly related to physical activity rather than nutrition. The most common change was an increase in sports being played with extended family:

We're doing a lot more stuff now, a lot more sport than we used to.

One participant did note that their father's health has also improved, and this was mostly tied to changes in nutrition:

Oh, my dad's getting quite healthy...he used to eat a lot as well.

4.2.5 Other areas impacted

Some of the children mentioned how other areas of their life had been affected by their participation in the programme. While these were not areas that were specifically targeted in the programme, the participants tied the changes they saw in these areas to their programme participation. One participant noted that they were more responsible at home, and now helped their mother with the housework. Another participant noted an effect on their school environment. This participant had difficulties in the past with fighting and name-calling with other children, though this was something they were actively trying to reduce. One other participant discussed how their energy levels during the day had changed as a result of having breakfast in the mornings:

When I didn't used to eat breakfast, I used to feel tired and grumpy.

4.2.6 Active Families Programme

The participants discussed parts of the programme in detail, and commented on some of the activities as well as the programme facilitators. There were mixed comments regarding some of the activities that were held during the programme session. Some participants described the games enthusiastically, in particular 'Fruits and Veggies'. However, other participants noted that sometimes the games became repetitive or were going on for long periods of time, which became boring:

The feedback regarding the programme facilitators was positive:

Our trainer is very nice.

When we first came here and they just told us a lot of stuff about it we felt quite excited to come back here. And we're quite excited because they were nice people as well.

In general the participants had positive comments regarding the programme sessions, and enjoyed attending them.

It's just a great place to keep active...and it's a lot of fun.

A distinctive theme arose during the focus groups around the social cohesion that the Active Families programme provided for the participants. While this was not a specific goal of the programme, many of the participants noted that the social connection they made with other participants was a primary motivator for attending the programme, and for staying involved in it. This opportunity to make friends was seen as one of the most positive aspects of the programme.

4.3 Facilitator and Key Stakeholder Interviews

Facilitators and key stakeholders were asked a range of questions in relation to various aspects of the Active Families programme. Topics of discussion included:

- Enablers/barriers to collaboration
- Enablers/barriers to the implementation of the programme
- Barriers that may inhibit participation
- Issues relating to the sustainability of the programme
- Satisfaction with the programme and suggestions for improvements

In addition to this, facilitators were asked about:

- Changes that have been noticed as a result of the programme

These topics and the common themes are described in detail below.

4.3.1 Collaboration

Enablers of collaboration

Collaboration is a key element of the successful development and implementation of a programme. Key stakeholders and facilitators identified a number of different enablers to collaboration and included successful communication, information sharing, consultation during the development phases of the programme and goals for enhanced collaboration.

Communication and consultation

Collaboration and communication were discussed in the form of support and guidance between different agencies. It was suggested that some agencies have a commitment to work together thereby enhancing collaboration and communication.

We have got an MOU that we have been working on for some time that was signed off about six months ago to say that we're committed to working together, we'll refer into each other's programmes, we'll provide each other with you know support and advice and we'll get around the table and talk out any issues and look at how we can develop you know better collaboration with each other, with other agencies. So there's quite a good relationship now.

Facilitators mentioned open communication lines with doctors who refer children onto the programme. The information provided means that the doctor is aware of the progress of their patient on the programme

But we normally let the doctor know 'hey look you've referred Bob, but Bob and his mum aren't ready to do the programme now'. We always keep the doctors updated so they know they are not just flicking over referrals for the sake of it, they are also informed that, 'ok, my families started or oh no, this family hasn't started', and to also find out why.

Consultation was carried out with various stakeholders to gain a more comprehensive understanding of the apparent needs within the population groups under investigation. This communication may have contributed to enhanced collaboration between various groups.

It ended up by being ProCare Network Manukau, Total Healthcare Otara, and CMDHB. So they were the three going in, in the first place. So we just worked on developing the proposal, went back and talked to more stakeholders, we talked to GPs, practice nurses, we talked to other activity and recreational sports providers and schools and we got a clear message that there was a need.

Information was shared from a range of organisations that were involved in similar programmes this integration demonstrates collaboration between regional organisations.

We got together with North Shore Harbour Sport, Sport Waitakere and Northland, Otara and Sport Auckland, and formed a regional active families forum, where we would go and share information about, what's your programme doing, what's your target population, what's your age group, and you take little snippets.

It was evident that consultation with the Otara Maori forum was carried out during the development of the programme, there was also consultation with the Getting Started Participant Committee who provided various ideas for the programme.

And we've been able to really tap into their knowledge of you know, what will work with this community, we've have good input for example from the Otara Maori forum where our staff have gone and done presentations and certainly when we were doing the set up we went to the forum, asked for their input, they gave us some good ideas. We utilised the Getting Started Participant Committee, so participants that had been on that programme, they came and gave us some really good ideas on what might work, and what might not work.

Goals for enhanced collaboration

The stakeholders provided statements to suggest they had ongoing goals to improve collaboration and develop partnerships with other organisations. Supporting community activities and strengthening linkages with relevant groups were considered key objectives.

We really wanted to get more involvement from SPARC so that they could see what was going on and hopefully they would support us. So it's a bit of a strategy from our perspective to get better relationships so hopefully we can be considered as a partner and a provider ongoing.

Again back to that point of sustainability by ... supporting other activities in the community, by having really good linkages with other groups and sports providers, and recreation centres, other things that families and children might want to do. So that we can you know, get much better linkages and families kind of feeding into those activities. During the programme, plus when the programme finishes.

Barriers to collaboration

Stakeholders and facilitators alike were aware of a number of barriers to collaboration, these included a lack of commitment, lost opportunity, issues with communication, and disconnected PHOs.

Lack of buy-in

It was apparent from both facilitators and key stakeholders that various primary health organisations were not dedicated to or willing to participate in the programme for various reasons, including funding issues and a desire to concentrate their efforts into other areas.

Not all PHOs were coming along to those meetings because not all PHOs have health promotion personnel ... other PHOs felt that they wanted to work with their own populations.

Additionally it was suggested that other health stakeholders were not fully engaged in the programme and were not committed to attending meetings.

Lost opportunities for collaboration

It was evident that there was a possible opportunity to collaborate with programmes already being implemented in the community rather than developing a further programme of similar nature. However, issues relating to funding and politics did not allow such collaboration.

Think that there would have been a significant difference so to speak because Ta Pacifica, their provider South Seas delivered the Kids in Action programme, and you know, from what I know of that programme, you know, it works really well ...and I think, what could have happened is we could have looked at, making that the programme for Otara and contributed more funding into that programme, learning from the programme.....there wouldn't be duplication ... So I think we could have made better use and added value to the existing programme, plus sort of tweaked it a bit, and delivered similar models in the two settings we were looking at. Rather than now having two programmes in Otara, Kids in Action and Active Families. The environment, and the politics and all those sorts of things, and funding models, wasn't conducive to that at the time.

Collaboration with programmes running adult models with similar goals and objectives were also considered at the beginning, but politics got in the way of successful collaboration.

Issues with communication

It was exposed that initially there was a sense of aversion towards the programme by some existing sport and recreation providers due to fears of lost funding. These concerns negatively impacted on the development of relationships.

So there's quite a good relationship now, but that took quite some time to get to that point because there was again I think a sense of ... Primary health organisations are going to come in and take some of the SPARC's dollar and start delivering these physical activity programmes.

Stakeholders also revealed that they found it difficult to communicate with general practices.

One of the difficulties has been getting it to the practices, actually talking with the GPs and the practice nurses to share information more, and really get them understanding more about the programme, the referral processes

Key contacts within the practices were hard to establish to ensure that programme information and referral procedures were passed on to new staff within the practices.

Disconnected PHOs

Throughout stakeholder and facilitator interviews it was apparent that there were issues around lack of collaboration between primary health organisations. The disconnection and poor collaboration between various primary health organisations brings up numerous issues for the programme including limitations on the population groups eligible to participate.

I think this would be, you know, these sorts of issues would not be issues if all the PHOs collaborated as well. There would not be this sense of ownership.

You know, because part of the problem is we go along to the PHOs, we talk to them about you know, doing our consultation and the development phases, and they say, it's our money, so we only want our enrolled population to have access.

Facilitators noted that one reason for issues with PHOs has been high staff turnover within the PHO, this disrupts the relationships between the organisations.

There was staff turnover in the PHOs, so we weren't able to go into some of the practices, particularly ProCare practices unless we were going alongside a ProCare representative. They turned over staff twice and at one point had no one for 6 months. So we have always been on the back foot and people out there don't know who we are.

4.3.2 Implementation

Enablers to the implementation of the programme

Some of the enablers to implementation identified by key stakeholders and facilitators included the organisation and management of the programme, good communication, having supportive strategies and a proactive approach, as well as having a strong, committed team delivering the programme.

Programme planning

There was a sense of good management and organisation within the programme and this effective coordination enables a consistent and strong programme to be implemented. It was also suggested that this management and organisation provides constructive benefits for the population groups for which the programme serves, such as the development of trust.

It had obviously been thought through very well..... Absolutely, papers provided and agendas provided, rooms set, it's been very well managed...I sense that the same will happen for the children and their families. That there is certainty and predictability and when you're in a community setting, if you want to do anything in health promotion and particularly with Pacific and Maori families, you have to be consistent. Okay, and that consistency is all important and in terms of building up trust, with the groups out there. People hate it when times change, buildings change, and people change. You know when you get a lot of change, people will drop off. But this programme has been consistent.

Adaptability

The structure of the Active Families programme means that it can be adapted and changed to suit the needs of the participants, and while this may sometimes be seen as deviating from session plans, it is seen as a key strength of the programme by facilitators.

Just pretend you are a kid. Because if you give it too much structure, they get bored quickly, and my mentality when I'm at programme, I'm always telling the crew and the parents 'who cares as long as they are active, as long as they are moving its all good'. Kids are running for it, going back and forth, whatever game they are playing. So I have taken it in my stride, and saying well it didn't go perfectly but these kids haven't stopped moving..... I'm young enough and crazy enough to adapt and I'm pretty keen.

The Active Families programme runs in a number of communities and the programme is adapted to suit the needs of these communities.

We then had to adapt very quickly our thinking and our delivery style, still the same core activities but the way we facilitate it, we had to adapt and change. So that was a learning the whole team took, which was really, really great. So we all took that learning together and realised that each community are very, very different.

Issues that have come up throughout the development of the programme have been “worked out” and because of the adaptable nature of the programme and programme staff, this has happened fairly smoothly.

There are problems along the way but we’ve worked it out, it hasn’t been too much of an issue, I’m pretty adaptable, the girls are, and the programme is still working.

Open communication

It was also evident through stakeholder discussions that meetings provided a means for informative communication about the implementation of the programme.

So each meeting we have a referral update, each meeting we have the Wise Kai update, we have programme news, and so for example you get told at every meeting how many families are participating, how many referrals are being processed, and how many have been discharged. Where they go to, what they’re choosing to do.

Communicating session plans to the whole team results in quality facilitation and knowledge transfer which are important to the programme as a whole.

I know when I go, I know what the team’s up to, because we have it all written down, and we have little weekly plans...and I think we’re all, even though there are some whose level of knowledge is different, having that over-arching idea you sort of know what it is you’re up to. So you have very clear communication behind the scenes to make sure that what we are doing up front is professional. Because for us it’s always been about quality, not quantity. And if I know that my families are going away with quality facilitation or quality learning, that’s important.

In addition, it was suggested that areas of concern were discussed within the programme team and clear objectives were set to try and overcome such issues.

My concerns have always been around low participation so I’ve worked really hard with the team to set clear targets and look at what do we have to do to meet those targets around getting more people participating.

It appears that there is an element of openness between key stakeholders and the programme facilitators, this allows effective communication and contributes to effective implementation of the programme.

But in terms of engagement it’s very good. As I say I’ve got that relationship with the coordinator where I can ask questions without feeling like I’m challenging too much. They’re very open, the people who run the programme, who actually do the physical activity and the different health components, they’re very open and they want to improve.

Stakeholder interviews revealed that there was considerable consultation with programme coordinators of other initiatives across the country to identify the best approach and an appropriate model to be developed and implemented.

And you know, the great thing about it is that there was a lot of openness to, you know us coming up with a model that would work in this population...we didn't have to replicate a model that might, you know, be sort of a national model. So we kind of got the best of both worlds, because we got to go and meet with the coordinators of other programmes across the country, find out what works, what doesn't work, and learn from that to develop the model here.

Additional strategies being implemented in the local community and within schools were suggested as beneficial because they provide a backdrop and support for the current Let's Beat Diabetes programme.

Huge initiative to encourage children to be more active and schools to only make healthy food choices available when food is sold on-site... So that's been running for a couple of years, and that's a backdrop to what's going on both in Let's Beat Diabetes Social Marketing, and Mission On... So that raises the profile of the discussion about food and activity and managing your own better health.

Supportive environment for participants

One of the most important enablers to the implementation of the programme is the support evident within the programme through the participants. Children and parents supporting one another during activities is an important success factor.

They are like 'oh come on mum, you're doing awesome'. So I think once that starts to build parents like 'oh yeah, I can actually do this'.

It's encouraged by us in the beginning, but it's driven by other parents who keep going, 'oh come on, have a go'.

Parents involved in the programme have also taken it upon themselves to take part in physical activity together outside of the normal Active Families programme. They have developed their own "support system" and the programme has been able to facilitate this.

So not only do they come to programme together, but now one of the participants, she's got her two sons involved in his rugby league team. And now both mums are doing water walking or meeting up for a walk every week, so they will take the kids to the park together and then while the kids are playing on the park the mums will walk around just for some exercise or they'll go to the pools. So they have developed their own support system outside the group which is awesome.

There is an understanding among facilitators that the way they communicate with the families is critical to the success of the programme. Despite weight being recorded while the participant is on the programme, this is not the focus and other measurements such as strength and girth are talked about.

We try to always flip it to the positive side, even when you're doing their assessments, which undertakes their weight and their height and so on, we immediately remove the scales out of the room so kids can't keep coming to stand on them. It's packed away straight after assessment. And we don't focus too much on weight, we focus more on the girth measurement, and then we will sit and explain to the parent what's going on, 'they are increasing in this, they are improving in their strength, physical tests, they're decreasing, yeah' and it's a celebration rather than a focal point.

Furthermore, this positive environment and communication is continued through the way the children are involved in the "rule-making" process. Involving the children in this process helps to facilitate a supportive and positive environment where children and parents alike can make changes to their lifestyle.

We've got three major rules on programme, and that's a guideline that we use every single session. So those three rules make it a safe environment for them so, the three rules would be, respect each other, and then we would ask 'what do you think that means to you'? So the kids normally come up with their own rules based on that. So like 'no name calling, encourage each other', things like that, 'respecting the environment', so any equipment, and the hall and the windows and things like that, and 'respect our active families team', which includes us as well as the parents. So with those guidelines in place I've never ever felt our programme has ever been an environment where someone is uncomfortable.

Active Families team

The enthusiasm and passion of the programme facilitators was considered to be influential in the success of the programme implementation.

You just see when the workers talk about the programme that their eyes light up. You know they're very passionate about what they do.

Because of this passion it was suggested that the programme team are highly trusted which contributes to successful implementation of the programme.

It's one of the programmes that I'm really, really happy with, because I've got complete trust in the team to get on with it basically.

It was also expressed that many of the programme staff may feel connected to the programme which contributes to their motivation and enthusiasm to make the programme successful.

Many of them [programme staff] actually live in this area so I think they've got a personal kind of buy-in to the programme on a level that makes it work really well. For being excited and enthusiastic and really getting in there and wanting to see it work, and loving the children and families that they're working with.

These comments made by key stakeholders are supported by comments from facilitators who mentioned their primary motivation for continuing their work with Active Families was watching the positive progress of the children and their families.

In addition to this, facilitators shared about the supportive environment in which they work. Encouraging the supportive environment were things such as having a supportive coordinator, having a united team and putting in a lot of effort.

We've got a really good foundation here. It's a supportive environment. We've also got a supportive team too. It's important that if you want the programme to be successful, we've got to be in sync, otherwise then it's pointless.

Barriers to the implementation of the programme

There were also perceived to be a number of barriers to the implementation of the programme including issues with the referral process, PHO boundaries and limited capacity and funding.

Referral process

The main barrier discussed throughout stakeholder interviews was the referral process. It was revealed that referrals from doctors were particularly low and slow which inhibits the success of the programme. In addition to this, the lack of dedicated personnel in organisations sometimes slowed down the referral process.

So sometimes we'd just have weeks without any referrals coming particularly from ProCare.

I have been around to 10 practices promoting the programme, I've been at three cell groups with practice nurses... and we're still not getting it through and that's frustrating for me.

This comment is mirrored by a facilitator who expressed that there was a lack of understanding about Active Families by health care professionals despite a number of meetings where information was presented.

It was suggested that the programme is limited by the number of participants it can accommodate. This limitation inhibits public promotion of the programme because the limited capacity could not assist a large influx of potential or willing children and families.

But we haven't done a lot of public promotion because we're still doing a limit of 35. We only have the capacity to take 35 people per site per year. So we don't want to you know, get so much information out there that we're going to get this huge influx and then we disappoint the community, or we can't meet the demand. So it's trying to get that balance right can be a bit tricky sometimes.

Another issue raised in relation to the referral process was the short time span that doctors allow for their patients. This short time was thought to inhibit or reduce the likelihood of doctors referring patients to the programme.

You know one of the real barriers that we can see is that there are very short consultation times for GPs. In some practices there is you know, sort of a culture of seeing as many patients as you can, and seven minute consultations. So I don't think those seven minute consultations are conducive to a GP being able to think proactively.

A subsequent issue with the referral process was the lack of preventative focus from doctors who were described as only focussing on treating the illness for which the patient came to the doctor for.

You know if a child comes in for problems with the neck, but the doctor can see that the child is very overweight, and perhaps pick up on some other issues and things .. it would be great if the doctor could think right, that child might do really well with Active Families and do some proactive discussions and referring. But I think primary healthcare is still very much in the

reactive phase, and so I think that's a real barrier. That you know, I'd like to see primary care practitioners be able to really have a much more sort of proactive and preventative focus when it comes to being able to identify potential participants for these sorts of programmes.

Facilitators spoke about issues with doctors referring patients that did not fit the eligibility criteria. Additionally, there also seemed to be issues surrounding the reluctance of doctors to refer their patients to the programme. This reluctance could possibly explain the low levels of patient referrals.

Sometimes we get kids who don't fit the criteria, so it could be that they are not available during the time of the programme or if they are available the parents aren't willing to come to the programme... because the programme's very new, a lot of doctors don't know about it even though we've done advertising, we've even gone in and seen some clinics, they're very reluctant to... hand their clients or their patients over unless they know a bit more about the programme.

And that's probably our biggest bump trying to get those numbers in. We sort of started, trying to catch up, if you like. So ProCare are very much aware and have acknowledged their major role with us. They're the biggest PHO, therefore we should have the biggest number of referrals from them, and we don't, we have very few

While there is a general feeling that the referral process is improving, there is also an understanding that the referrals are coming from the same doctors and there has been little variation in where the referrals are coming from.

It seems to be the same doctors all the time that tend to refer in.

Primary health organisation boundaries

The primary health organisation boundaries were regarded as a barrier to the implementation of the programme because these boundaries unnecessarily segregate the population.

[PHOs think]... it would probably work better with our own population. But you know the truth is that, the population is spread. You know, people that actually participate in these programmes don't care about, or understand about PHO boundaries.

In addition to the barriers posed by problems with the referral process and boundaries of PHOs, facilitators mentioned a number of barriers that are specific to the day-to-day delivery of the programme.

Lack of participation from parents

It was strongly reported that there are issues surrounding non commitment and non participation from parents. It seems that it can be difficult to gain parental buy-in to the programme even when the child is keen and willing to participate. This lack of commitment could be driven by a variety of factors.

They are the parents that we have to go knock on the windows, they're sitting in the car smoking or they have dropped their kid off and gone and we are trying to look for them. So that's been a problem and parents aren't willing to participate as much.

Families not ready to commit. Yeah so we can only support them as much, but if they're not ready and willing, then you know what more can we do? And a lot of the time it's the kids who

really love the programme, but it's the parent that doesn't want to devote the time or other things maybe happening, or like I said before it's not a priority for them.

Unwilling children

Additionally it was reported that on some occasions the child is not willing or interested in participating in the programme and without this commitment it is hard to successfully implement the programme.

There are one or two situations where it's the child that doesn't want anything to do with the programme. They have come up with all the excuses in the world and the parents really want to drive them but they don't want to force them. We've only seen two situations like that. But all we can offer is support for the parents especially because I said, you know, there's not so much we can do unless the child buys into the programme or buys into doing something active, we can't do a lot.

Preparing participants to finish the programme

There have been issues with participants not wanting to leave the programme. How to overcome this problem was conveyed as a concern by one of the facilitators.

They don't want to leave the programme. That's the biggest thing we have a problem with, when it came to the end of their time on programme they didn't want to leave, and we are like 'well we need you to leave because we need another number', It sounds really bad, but at the end of the day that's what it was about. So it was how do we gear these people up to say 'you're good, you're good to go, you've gained everything you need to gain'.

Differences in reporting requirements

One of the facilitators discussed that they are required to develop numerous reports for various stakeholders. Meeting the demands and expectations of these varying reports was described as being a lot of work.

So it's trying to meet the needs of all of those reporting requirements. So we try to keep it as simple and basic, but getting everything in there, as best as we possibly can. It's a lot of work.

Issues with the venues

Finding an appropriate venue was described as a difficult process, in addition one of the venues currently being used was viewed as inappropriate for the activities of the programme. However, issues surrounding funding inhibit the accessibility of various other venues that may be suitable.

It was hard work, we have been on the ground trying to find locations since February 2007. Pretty much when we started, and the venue space is too small, it's not the right venue space for the programme but its best of what we've got.

Lack of resources

It was reported that the programme doesn't have enough resources to help children maintain ongoing activity such as providing sports equipment and membership fees.

Sustainable activities once they leave programme, funding for that, kids who want to move into rugby league or into swimming, it would be an absolute joy to be able to say, 'we have

this little pot of gold. We are going to pay for your first year of membership', or 'we are going to pay for your equipment'. We don't have that resource to do that so we have to be smart about how we use that budget and that resource.

It was also reported that there is a lot of equipment available at one of the venues but due to limited financial resource these cannot be accessed for the programme. In addition the facilitators of the programme have to provide all the equipment resources themselves.

Limited finances were also reported as an inhibitory factor in the development of resources that were needed for the target population.

Things like recipe books, pacific island recipe books, specifically designed, for pacific island families. They are large they are big eaters, so something nutritious for them like a recipe book. Something as simple as that, we don't have that resource at all. So that's a barrier for us to be able to help these families.

Additional resources that were described as lacking were firstly a programme vehicle and secondly banners or flags to utilise at the programme venues.

In Manurewa we are working out of the recreation centre there. If we had the banners, flags something to use, like I said it would be much more professional. And we would get a lot more seriousness out of people who are on the programme.

Through facilitator interviews it was acknowledged the increasing human resource may be beneficial to the programme, this increased assistance would be particularly useful as the programme starts to develop and increase in size.

So I actually suggested that he have an assistant on board. Cause at that sort of capacity, we haven't actually hit that capacity as off yet, but I'm beginning to feel the pressure at the moment because referrals are growing, so I can't sort of do both, assist [the facilitator] and register new families, and paper work.

4.3.3 Behavioural and physical changes

It was reported that the activity levels of some children have increased as a result of the programme. Some facilitators described occasions where they have been informed that a child or family is now more physically active as a result of the learning from the programme.

Having principals from schools ring up the public health nurses and the public health nurses ring us and saying 'you know, we just wanted to congratulate one of the children, because for the first time in his whole schooling, he ran around the field in cross country'. That was amazing to us. Because we were like 'wow'

One facilitator interviewed also described an instance where they were informed that a family or child had changed part of their nutritional behaviour as a result of the programme.

[a participant said]... "You wouldn't believe it we have no fizzy drinks in our fridge, it's because you said, no don't".

In terms of the body measurements taken throughout the programme it was conveyed that occasionally there are improvements in the body measurements of participants, however often there is no positive change.

I also look at the kids results in terms of measurements. And sometimes positive, most of the time not so positive.

The programme was described to have positive impacts on support networks that often develop within the programme. Despite not being an explicit goal of the programme, the enhanced self esteem and personal growth of participants was described as a positive programme impact.

That's the huge change we see, these kids come, 13 and looking like they don't quite fit, you can pick it, their self esteem is low. They are very much aware of who is there and what's going on and how they look. But by the end of it, they are telling you what to do and how to do it and it's just that warm fuzzy feeling, and it's the support from parent to parent, or caregiver to caregiver.

4.3.4 Barriers for participants

Key stakeholders and facilitators identified a number of barriers to participation for the children and parents taking part in the programme and included time, transport, income and perceptions of the programme.

Time and transport

Issues around the timing of the programme were expressed as possible barriers for participants to attend the programme. Issues were related to parental working hours which made attending the programme in the early afternoon difficult.

The timing cause it's an after school... so there are barriers around that, you know the parents are either working, or they're doing shift work, actually getting them to the programme. I think that's a bit of a barrier.

The timing of the programme was also seen as a barrier for some participants because they wanted to go home first, have some food and get changed before attending the programme.

I think it is just physically getting them... and I think that was just because of the distance to get there, they were all going home and having some afternoon tea, changing and then coming out.

Additional issues with the timing of the programme were explained with regard to the fact that school only finished half an hour prior to programme commencement which does not allow enough time to travel for some families.

Then it's the travel, they wouldn't make it in time to travel from there to the programme, because if school finishes at three, programme starts at 3.30.

Low income

The notion that many of the participating families have low incomes was described as a programme barrier particularly in relation to inhibited access to healthy food options or not being able to afford transport to the programme.

Definitely income, I mean obviously we target PI and Maori specifically, life style out there in South Auckland is a big hiccup on getting the right attitude when it comes to programme, as you might guess some are struggling to even get to the programme

Cost was example barrier to families, making health choices. They can't afford the fruits and veggies. They can't afford to eat healthy food.

Perceptions of programme

Although the programme does not directly promote weight as its key objective, it was suggested that children have formed a perception that the programme is for overweight children. Some of the children are therefore embarrassed to be on the programme, this could potentially inhibit other children from participating.

Weight isn't mentioned or promoted as the aim of the programme, but kids have formed their own opinions in thinking that the programme is for overweight kids and they're often ashamed to mention it at school and around friends that they go.

4.3.5 Sustainability

Maintain focus on lifestyle change

It was suggested that in order to enhance sustainability of the Active Families programme the focus needs to extend beyond the programme and to support families in maintaining healthy lifestyles after they have left the programme.

One thing that I would like to see is a really strong focus continues to build around is the sustainability when the child graduates from the programme. You know, and the family graduate from the programme, that the emphasis is on lifelong learning and sustainability. So, I think that's very important that we don't just kind of get into this mentality that we've got six months and then they're out the door. But actually supporting this transition, right from as soon as they come into the programme starting to ask questions about how are you going to be able to do this in your life, you know, right from this moment onwards.

The programme was described as having a gradual and sustainable approach to weight loss and developing healthy lifestyles rather than a more instant but short term approach.

I think it's really important that people understand that weight loss is gradual, and that activity build up is also gradual. And if things are to be sustainable you have to build on little steps over time. And I think the programme has that approach and that reinforcement.

Enhanced collaboration and partnership

In addition it was thought that creating enhanced collaboration and partnerships with various community activities and groups would support the sustainability of the programme.

Again back to that point of sustainability by supporting other activities in the community, by having really good linkages with other groups and sports providers, and recreation centres, and other things that families and children might want to do. So that we can you know, get much better linkages and families kind of feeding into those activities. During the programme, plus when the programme finishes.

Ensure relevance of programme

It was acknowledged by facilitators that continually growing and refocusing the aims of the programme to suit and support the community was important. Additionally, it was expressed that reviewing current trends and research was imperative to the sustainability of the programme.

Making sure that the programme is moving with the times and keeping up to date with our research and our evidence if you like. Making sure we are hitting those targets, that we are supporting our community and that it is a community need, that it's something that we don't just inject in and when the funding is gone we pull it back out, cause we don't have the money.

Adaptability

Adaptability was discussed in relation to the programme team and their ability to fill various roles when necessary.

Then I have a strong team of three, they all can facilitate and they all can interlink. That's the goal of the future. So if one's away, one steps straight into the role, so it stays a strong programme all the time with equal strength if you like.

Issues with funding

Issues surrounding funding and how to attain additional funding were raised in relation to the ongoing implementation of the programme.

The question for us now is around funding. How do we look for more funding, so that we can, when the funding does run out, how can we keep the programme running because we'd like to continue with it.

4.3.6 Programme satisfaction

It was reported that the programme appears to be meeting the needs of the population, has promoted self esteem and is seen favourably by many families. Thus stakeholders seem to be satisfied with the success to date.

I'm really satisfied with where it's at now. ...In terms of the actual programme, and its model and how it's working, I think it's going really well... the data that I see coming through plus anecdotal reports and other bits and pieces I hear about the programme. I think it's meeting the needs of the population. I think it's seen by families as being a fun and supportive environment.

From the perspective of the facilitators, there is a high level of satisfaction from participants. Facilitators very rarely hear anything negative from the families about the programme overall and there is evidence that participants enjoy their time on the programme.

I've never heard anything directly bad, I am one of the lucky ones I get to have fun with families, I get to experience all the fun.

4.3.7 Suggestions for improvement

Enhanced referral system

It was expressed that broadening the referral system so that additional primary health organisations and schools could become involved in recruiting new children and families would be beneficial for the programme.

Our preference would be to be able to have other agencies and particularly schools, being able to refer their children and their young people into the programme as well.

But also again, I think you know, it would be really good to get other PHOs involved and around the table. ... I'd like to see more PHOs collaboration and referring into the programme.

Enhanced collaboration

It was suggested that developing stronger collaboration between stakeholders involved within this programme is important so that improvements can be made and the programme can be sustained into the future.

I think there needs to be stronger relationships between Otara Health and the sports trust and look at how we can you know, plan and work together into the future, so that you know, this programme, the value is added to this programme rather than perhaps looking at other programmes starting up in the vicinity.

Additionally maintaining collaboration and communication with general practices was considered and important aspect of the programme.

So, we have to continue to schedule regular visits to practices, regular presentations, regular newsletters, good feedback back to the practices, that's really important to maintain.

Increased training

One facilitator felt that they needed more specific training around motivation, nutrition and physical activity.

I feel we need more training around dealing with motivation, you know how you motivate these families to make a lifestyle change, things like that. I think we need more education around nutrition, around physical activity.

There was a general feeling that the programme staff should all have the same knowledge and training base so that if one person is away, others have the knowledge to cover them.

So it would be awesome if we could all have sort of like a similar grounding so that if one person is away... because I know if either one of them is away I can cover them, but if I'm away they can't cover me. So yeah, it's really hard. So it's just trying to develop all our skills so we can do more than one thing.

Additional staff

Due to the heavy work load of the current programme staff, it was suggested that an additional staff member be taken on board to help with the work load.

Another staff member would be awesome. Because there is only three of us that go to each venues site. But because there is so much paper work that's involved with each, not only at venue site, but all the behind the work scene.

Increased resources

Additional resources were also mentioned as a factor that would positively impact the programme. The programme has limited resources and a number of areas were suggested for an increase in resources namely vehicles and programme-specific advertising material such as banners. Facilitators use their own cars for the programme, it was suggested that a programme van be purchased due to cost-effectiveness and wear and tear on their own vehicles.

So we use our own vehicles which is really hard for wear and tear and things like that, and we carry quite a lot of equipment. If we could have a, possibly a programme van or something. Just eliminates us using our own personal vehicles. Because it's cost effective at the end of the day.

It was also recommended that programme-specific advertising material such as banners and flags would enhance the “look” of the programme and encourage others to take the programme more seriously.

If we had the banners, flags something to use, like I said it would be much more professional. And we would get a lot more seriousness out of people who are on the programme.

Additional programme content

In addition, there was a suggestion from one of the facilitators that the content of the programme needs to be modified to include more around menu planning and nutritional information.

Think the content needs to be changed..... doing something around menu planning, food groups, servings per day, that would be ideal to resolve issues, to a certain extent.

Expansion

It was proposed that expanding the focus of the programme to involve additional ethnicities would be beneficial. This was considered important in light of the high chronic illness prevalence associated with other ethnicities living in New Zealand.

I'd like it rolled out more... because it is mainly Pacific Island and Maori folk, and so it's come to my notice that Indians have the highest rate of diabetes, so I'd like to see it extend to that pack too.... I'd just like to see, like a South Asian Pacific focus.

4.4 Quantitative results

This section presents the results of the quantitative data supplied by the Active Families Programme, consisting of child and family questionnaires and child physical outcome measures.

4.5.1 Child lifestyle questionnaire

A total of 183 children were referred into the programme during the evaluation time period (May 2007 – November 2008), of which 113 enrolled in the programme. Table 1 below presents a description of the sample. Almost half of all children (46.4%) referred to the programme were referred by an East Tamaki Health Care Clinic. Practice nurses referred an additional 18%, whereas ProCare clinics referred 1.1% of children. Other referrers included public health nurses, school nurses, specialists, General Practitioners from other PHOs, as well as referrals from Middlemore Hospital, the Manukau Super Clinic and self-referrals. Of all children enrolled in the programme, more than half were male (57%), and ages ranged from 5 to 15 years of age. Children of Samoan ethnicity comprised the largest ethnic group (47%), followed by Maori (15.6%), Cook Island Maori (11%) and Tongan (9.2%).

Table 1 Sample description

	%	N
Referrer		
East Tamaki Health Care	46.4	183
Practice Nurse	18.0	
ProCare Clinic	1.1	
Other	34.4	
Sex		
Male	57.1	112
Female	42.9	
Age		
5-6	5.4	112
7-9	41.1	
10-12	44.7	
13+	8.8	
Ethnicity		
NZ/European	2.8	109
Maori	15.6	
Cook Island Maori	11.0	
Samoan	46.8	
Tongan	9.2	
Indian	2.8	
Niuean	1.8	
Other	10.1	

Table 2 presents the child lifestyle questionnaire items, comparing the baseline responses with those obtained three months after beginning the programme. Only children with both baseline and three-month data were included in these analyses. As explained in section 3.3, paired sample t-tests were conducted to assess statistical differences between assessment dates. Only items that have an asterisk (*) next to them show a statistically significant difference.

On average, children reported that they had breakfast some days to most days, and did not change significantly between the baseline and three-month assessments. Children reported taking packed lunch most days to every day, and sometimes buying food from the tuck shop, dairy or takeaway. On average children reported having 2.1 servings of fruit a day before the programme began, and 2.9 servings at three-month assessment; whereas they reported having 2.2 servings of vegetables a day, which changed to 2.5 at three-month assessment. Neither of these changes were statistically significant. Children reported drinking water often to all day, and before the programme they reported on average to drink soft drinks sometimes or often. However, during the three-month programme assessment, children reported drinking soft drinks never to sometimes. This decrease in reported frequency of soft drink consumption was statistically significant. Energy drinks were also reportedly consumed never or sometimes at both assessment points, whereas milo, coffee, tea, juice and cordial were reportedly consumed between sometimes and often, with no change between assessment dates.

Children were then asked how much of several food groups they thought a person should eat in order to be healthy. Before the programme began, on average children responded that people should eat vegetables regularly, but not too much. During the three month assessment, children on average reported that vegetables should be eaten as much as you like, to regularly but not too much. This also represented a statistically significant improvement in children's knowledge of healthy eating. Children correctly identified that sugary foods should be eaten very little; that meat and starchy foods should be eaten regularly but not too much to very little; that fatty foods should be eaten very little; and that high fibre foods and fruit should be eaten more regularly than the starchy, sugary and fatty foods.

There was a significant improvement in children's perceptions of knowing enough about food to make healthy choices. On average children reported that they agreed that they knew enough about food to make healthy choices, they thought it was important to eat healthy food, they felt they would be able to eat healthily now and in the future, and enjoyed eating healthy food. Children also agreed with the statement "I enjoy taking part in physical activities like sports, walking, running or riding a bike".

As for screen time activities, on average children reported watching television slightly more than 1-2 hours a day, which did not significantly decrease at the three month assessment. Play station was the second most popular activity, also averaging slightly more than 1-2 hours a day. Although there was an apparent decrease to less than one hour a day at the three month assessment, this change is not statistically significant.

Table 2 Baseline and three month comparison of child lifestyle questionnaire¹

	Baseline	3-month assessment	N
	Mean (SD)		
Q1. How often do you eat breakfast?	2.74 (.92)	2.86 (.91)	35
Q2. How often do you take a packed lunch to school?	3.17 (.86)	3.46 (.78)	35
Q3. How often do you buy food from tuck shop / dairy / takeaways?	2.0 (.64)	1.97 (.82)	35
Q4. How many servings of fruit do you have a day?	2.7 (1.4)	2.94 (1.25)	33
Q5. How many servings of vegetables do you have a day?	2.21 (1.67)	2.45 (1.56)	33
Q6a. How often do you drink water during the day?	3.19 (.94)	3.46 (.65)	26
Q6b. How often do you drink soft drinks during the day?	2.35 (.81)	1.8 (.52)**	20
Q6c. How often do you drink energy drinks during the day?	1.75 (1.0)	1.5 (.63)	16
Q6d. How often do you drink milo / coffee / tea during the day?	2.52 (.75)	2.14 (.66)	21
Q6e. How often do you drink juice / cordial during the day?	2.36 (.90)	2.14 (1.08)	22
Q7a. To be healthy, do you think people should eat vegetables?	2.03 (1.08)	1.52 (.85)*	31
Q7b. To be healthy, do you think people should eat sugary foods?	3.07 (.37)	3.07 (.37)	29
Q7c. To be healthy, do you think people should eat meat?	2.39 (.67)	2.48 (.77)	31
Q7d. To be healthy, do you think people should eat starchy foods?	2.37 (.85)	2.23 (.94)	30
Q7e. To be healthy, do you think people should eat fatty foods?	3.1 (.55)	3.13 (.35)	30
Q7f. To be healthy, do you think people should eat high fibre foods?	1.83 (1.04)	2.0 (.93)	29
Q7g. To be healthy, do you think people should eat fruit?	1.45 (.77)	1.32 (.70)	31
Q8. I know enough about food to make healthy choices	3.03 (.78)	3.34 (.55)*	32
Q9. I think it is important to eat healthy food	3.69 (.59)	3.75 (.44)	32
Q10. I feel like I will be able to eat healthily now and in the future	3.38 (.71)	3.44 (.56)	32

¹ Refer to section 3.3.2 for response codes

Q11. I enjoy eating healthy food	3.25 (.80)	3.41 (.67)	32
Q13. I enjoy taking part in physical activities	3.45 (.68)	3.42 (.62)	31
Q15a. How many hours a day do you spend watching TV?	2.33 (1.23)	2.27 (.96)	15
Q15b. How many hours a day do you spend on the computer?	1.2 (.45)	1.0 (.0)	5
Q15c. How many hours a day do you spend on play station?	2.18 (1.33)	1.64 (.81)	11
Q15d. How many hours a day do you spend on X-box?	1.0 (.0)	1.33 (.58)	3
Q16. I feel like I will be able to do the right amount of physical activity now and in the future	3.39 (.72)	3.55 (.57)	31
* p value \leq .05 ** p value \leq .01 *** p value \leq .001			

Table 3 presents a comparison of the baseline and six-month assessment of the child lifestyle questionnaire items. We notice that the only significant differences between scores are found in the following items: frequency of energy drink consumption, frequency of juice or cordial consumption, perceptions of appropriate vegetable and meat consumption, and perceptions of possessing enough knowledge to make healthy choices for themselves. Children reported consuming energy drinks, juice and cordials less frequently at the six-month assessment than they did at baseline. When asked how much of certain foods people should eat in order to be healthy, at the six month assessment the children's average response had become much closer to 'eat as much as you like'. At baseline, children responded that meat should be eaten 'regularly but not too much', to 'eaten very little'. At six month assessment, this significantly changed to 'eat regularly but not too much'. Furthermore, with respect to children's level of physical activity, there was a significant difference between baseline and the six month assessment in the amount of time that children reported doing their physical activity of choice (question 14 in child lifestyle questionnaire). The average response at baseline was around 30 minutes, whereas at six months the average response was closer to 1-2 hours of the first reported physical activity a week. This difference was statistically significant (p-value = 0.014, data not shown).

Table 3 Baseline and six month comparison of child lifestyle questionnaire²

	Baseline	6-month assessment	N
	Mean (SD)		
Q1. How often do you eat breakfast?	3.0 (.97)	2.89 (.83)	18
Q2. How often do you take a packed lunch to school?	3.33 (.84)	3.17 (.99)	18
Q3. How often do you buy food from tuck shop / dairy / takeaways?	2.06 (.73)	2.06 (.64)	18
Q4. How many servings of fruit do you have a day?	2.67 (1.53)	3.17 (1.47)	18
Q5. How many servings of vegetables do you have a day?	1.94 (1.39)	2.67 (1.14)	18
Q6a. How often do you drink water during the day?	3.25 (.93)	3.38 (.72)	16
Q6b. How often do you drink soft drinks during the day?	2.0 (.76)	2.0 (.54)	8
Q6c. How often do you drink energy drinks during the day?	2.14 (1.07)	1.0 (.0)*	7
Q6d. How often do you drink milo / coffee / tea during the day?	2.64 (.81)	2.18 (.41)	11
Q6e. How often do you drink juice / cordial during the day?	2.27 (.79)	1.64 (.67)*	11
Q7a. To be healthy, do you think people should eat vegetables?	1.80 (.86)	1.33 (.49)*	15
Q7b. To be healthy, do you think people should eat sugary foods?	3.2 (.41)	3.07 (.26)	15
Q7c. To be healthy, do you think people should eat meat?	2.4 (.63)	1.93 (.46)*	15
Q7d. To be healthy, do you think people should eat starchy foods?	2.23 (.73)	1.92 (.76)	13
Q7e. To be healthy, do you think people should eat fatty foods?	3.07 (.70)	3.13 (.35)	15
Q7f. To be healthy, do you think people should eat high fibre foods?	2.21 (1.19)	1.86 (1.03)	14
Q7g. To be healthy, do you think people should eat fruit?	1.41 (.71)	1.18 (.39)	17
Q8. I know enough about food to make healthy choices	3.06 (.80)	3.56 (.62)*	18
Q9. I think it is important to eat healthy food	3.72 (.58)	3.67 (.77)	18
Q10. I feel like I will be able to eat healthily now and in the future	3.47 (.72)	3.59 (.51)	17

² Refer to section 3.3.2 for response codes

Q11. I enjoy eating healthy food	3.39 (.70)	3.56 (.62)	18
Q13. I enjoy taking part in physical activities	3.41 (.51)	3.65 (.49)	17
Q15a. How many hours a day do you spend watching TV?	1.83 (.98)	1.5 (.55)	6
Q15b. How many hours a day do you spend on the computer?	-	-	
Q15c. How many hours a day do you spend on play station?	1.25 (.50)	1.25 (.50)	4
Q15d. How many hours a day do you spend on X-box?	-	-	
Q16. I feel like I will be able to do the right amount of physical activity now and in the future	3.47 (.62)	3.65 (.49)	17
* p value \leq .05 ** p value \leq .01 *** p value \leq .001			

4.5.2 Family lifestyle questionnaire

Table 4 presents a comparison of baseline and three-month assessments of the family lifestyle questionnaire items. Parents or caregivers reported that the family ate breakfast together between ‘some days’ and ‘most days’, which remained the same at the three-month assessment. A similar response was given for how many days they sent the child to school with a packed lunch, and how often the family ate a main meal together. When asked how often the family had takeaways per week, on average parents responded ‘some days’. Parents on average thought it was ‘very important’ for their family to make healthy choices, and between ‘important’ and ‘very important’ to engage in physical activity. Again, these items did not change over the initial three-month programme period. Parent’s knowledge about nutrition was tested by asking how much food in each food group they thought should be eaten in order to remain healthy. Parents correctly identified vegetables as being able to be eaten ‘as much as you like’, and sugary foods as ‘eat very little’. A statistically significant difference was seen in parents’ responses to how much meat should be eaten. Prior to the programme, parents thought that in order to be healthy a person could ‘eat as much meat as s/he liked’, but three months into the programme on average parents reported that meat should be eaten ‘regularly but not too much’. Parents reported that starchy food should be eaten ‘regularly but not too much’ to ‘very little’, and fatty foods should be eaten ‘very little’; and also identified that high fibre foods and fruit should be eaten between ‘as much as you like’ and ‘regularly but not too much’. Parents on average agreed that they knew enough about food to make healthy choices for themselves and their family, and that they would be able to do the right amount of physical activity now and in the future, although no significant difference was observed between assessment dates.

Table 4 Baseline and three month comparison of family lifestyle questionnaire³

	Baseline	3-month assessment	N
	Mean (SD)		
Q1. How often does your family eat breakfast together?	2.42 (.97)	2.55 (.91)	33
Q2. How often do you send your child to school with a packed lunch?	3.3 (.59)	3.27 (.80)	33
Q3. How often does your family eat a main meal together?	3.3 (.92)	3.15 (.71)	33
Q4. How often does your family have takeaways?	1.94 (.24)	1.91 (.38)	33
Q8. How important is it for your family to make healthy choices?	4.79 (.49)	4.7 (.59)	33
Q11. How important is physical activity for your family?	4.64 (.65)	4.58 (.66)	33
Q12a. To be healthy, how much vegetables should a person eat?	1.06 (.35)	1.06 (.24)	33
Q12b. To be healthy, how much sugary foods should a person eat?	2.94 (.25)	3.0 (.0)	32
Q12c. To be healthy, how much meat should a person eat?	1.88 (.42)	2.18 (.39)**	33
Q12d. To be healthy, how much starchy foods should a person eat?	2.44 (.80)	2.28 (.52)	32
Q12e. To be healthy, how much fatty foods should a person eat?	2.91 (.30)	2.94 (.25)	32
Q12f. To be healthy, how much high fibre foods should a person eat?	1.71 (1.01)	1.48 (.72)	31
Q12g. To be healthy, how much fruit should a person eat?	1.12 (.42)	1.15 (.36)	33
Q13. I know enough about foods to make healthy choices for myself and my family	3.24 (.71)	3.39 (.61)	33
Q14. I feel like I will be able to do the right amount of physical activity now and in the future	3.5 (.62)	3.38 (.66)	32
* p value \leq .05 ** p value \leq .01 *** p value \leq .001			

Table 5 presents a comparison of the family lifestyle questionnaire items between baseline and the six month follow up. There were no significant changes in nutritional knowledge or habits around family meal times, as well as no significant changes in the amount of time reportedly spent in family physical activities (data not shown).

³ Refer to section 3.3.2 for response codes

Table 5 Baseline and six month comparison of family lifestyle questionnaire⁴

	Baseline	6-month assessment	N
	Mean (SD)		
Q1. How often does your family eat breakfast together?	2.69 (.87)	2.88 (.81)	16
Q2. How often do you send your child to school with a packed lunch?	3.25 (.45)	3.38 (.62)	16
Q3. How often does your family eat a main meal together?	3.50 (.82)	3.63 (.50)	16
Q4. How often does your family have takeaways?	2.0 (.0)	2.0 (.0)	16
Q8. How important is it for your family to make healthy choices?	4.94 (.25)	4.81 (.54)	16
Q11. How important is physical activity for your family?	4.69 (.60)	4.63 (.62)	16
Q12a. To be healthy, how much vegetables should a person eat?	1.0 (.0)	1.1 (.25)	16
Q12b. To be healthy, how much sugary foods should a person eat?	3.0 (.0)	2.88 (.34)	16
Q12c. To be healthy, how much meat should a person eat?	1.94 (.25)	2.13 (.34)	16
Q12d. To be healthy, how much starchy foods should a person eat?	2.5 (.89)	2.38 (.62)	16
Q12e. To be healthy, how much fatty foods should a person eat?	3.0 (.0)	3.06 (.25)	16
Q12f. To be healthy, how much high fibre foods should a person eat?	1.5 (1.03)	1.44 (.73)	16
Q12g. To be healthy, how much fruit should a person eat?	1.06 (.25)	1.06 (.25)	16
Q13. I know enough about foods to make healthy choices for myself and my family	3.13 (.62)	3.50 (.52)	16
Q14. I feel like I will be able to do the right amount of physical activity now and in the future	3.53 (.52)	3.60 (.63)	15
* p value \leq .05 ** p value \leq .01 *** p value \leq .001			

Caregivers' perceptions of the factors that acted as barriers to them making healthy food choices changed throughout the programme, but these changes did not reach statistical significance as measured with a Z-test. Table 6 below shows a comparison of the barriers identified at baseline and

⁴ Refer to section 3.3.2 for response codes

those identified at six months post programme initiation for making healthy food choices, while table 7 shows barriers to being physically active.

The primary barrier identified at baseline for making healthy food choices was cost, with time coming in second place and perceived limited choices as third. After six months of being in the programme, cost remained a barrier for 37% of participants. Time issues and not liking the taste of healthy food choices were second in frequency, as well as limited choices.

Table 6 Barriers to healthy food choices

Barrier	Baseline % (n=86)	Six-Month % (n=19)
Cost	62.8	36.8
Time	19.8	15.8
Transport	-	5.3
Limited choices	8.1	10.5
Knowledge	3.5	5.3
Don't like taste	4.7	15.8
Other	1.2	10.5

With regards to barriers to being physically active, at baseline work commitments was followed closely by motivation as the two leading barriers; whereas at six months post programme initiation, motivation was most often cited as a barrier to being physically active, followed by work and time. Again, the change in barriers identified was not statistically significant as measured by a Z-test.

Table 7 Barriers to being physically active

Barrier	Baseline % (n=87)	Six-Month % (n=19)
Work	47.1	22.2
Time	5.7	16.7
Motivation	43.7	33.3
Cost	1.1	-
Health	-	11.1
Other	2.3	16.7

4.5.3 Child outcome measures

Table 8 below presents a comparison between the baseline and three month physical assessment of child outcomes. Before the programme, children had an average height of 146 cm, which increased to 147.3 cm at the three month assessment. Children weighed on average 71 kg, which remained the same. There was significant difference in children's girth measurement, steps and walk/run measurements, all showing improvement. Children on average lost 3 cm in girth, and improved their physical performance.

Table 8 Baseline and three month comparison of child outcomes

	Baseline (n=48)	3-month assessment (n=48)
	Mean (SD)	
Height	146.04 (11.4)	147.30 (11.3)***
Weight	71.29 (20.6)	71.28 (21.1)
Girth	97.89 (13.7)	94.79 (15.5)**
Steps	36.81 (8.0)	44.29 (7.6)***
Walk / Run	29.22 (5.7)	32.1 (6.1)***
* p value \leq .05 ** p value \leq .01 *** p value \leq .001		

Table 9 below presents the baseline and six month comparison of children's physical outcomes. Again we see a significant gain in height as well as a significant gain in physical output as measured through the step-ups. However, we also see a gain in weight from an average of 70.6 kg to 72.3 kg. There is an observed reduction in girth, however this reduction does not reach statistical significance and therefore we cannot confidently say that this reduction is not due to chance.

Table 9 Baseline and six month comparison of child outcomes

	Baseline	6-month assessment	N
	Mean (SD)		
Height	144.09 (12.0)	147.4 (12.3)***	25
Weight	70.6 (23.2)	72.28 (23.3)*	25
Girth	98.82 (15.6)	97.06 (15.3)	25
Steps	33.25 (7.3)	46.96 (7.5)***	24
Walk / Run	27.77 (6.0)	32.59 (5.3)	22
* p value \leq .05 ** p value \leq .01 *** p value \leq .001			

5. Discussion and conclusion

5.1 Summary of results

5.1.1 Parent focus groups

The discussion of the focus groups conducted with the parent participants covered a variety of topics, including programme attendance and participation, lifestyle changes encouraged by the programme, and changes that they had seen as a result of their participation in the programme. Many parents were encouraged to first attend the programme sessions because of the health and weight of their children, though they were later encouraged to continue to attend because of the support they found with the programme facilitators and the other participants. Some found that the timing of the programme in the afternoon, and tiredness or lack of motivation would hinder them from attending the sessions. Parents found that they were encouraged to make changes to their lifestyle with respect to nutrition and physical activity, and these would sometimes be other participating families, but would often be their own extended families. While extended family could be a support though, lack of buy-in from family members was often noted as a barrier to change. Other barriers included the increase in time involved in healthier food preparation, especially when busy work schedules had to be overcome. Environmental barriers for physical activity were also described, such as lack of nearby parks. Parents did note that there were significant changes for them and their children as a result of their participation in the programme. These changes included: changes to knowledge about nutrition; changes in attitude towards healthier foods; changes to behaviour with respect to eating and physical activity; physical changes that they saw in their children; changes to their larger families and community as a result of their participation. Parents also noted that other areas of their lives were also impacted, though these areas were not particularly targeted by the programme, such as better interpersonal skills in their children. In general, the parents were very happy with the Active Families programme, and most of the programme-specific feedback was around increasing the number of session times during the week, additions to the nutrition sessions, and increasing awareness of the programme in schools.

5.1.2 Children focus groups

The focus group discussion with the child participants covered similar topics to those in the parent discussions. Children generally felt that they were initially referred to the programme because of their weight or health, though they generally enjoyed attending the sessions because of the activities and games involved. Some of the participants found that the sessions were tiring or repetitive, and this discouraged them. Participants also discussed how they were making lifestyle changes, and while most of these were around increasing physical activity by involving family and friends, there was some discussion of how changes in nutrition were encouraged by a recent media release on a food safety issue. Barriers to making these changes were also discussed, though these barriers were mostly to making changes to nutrition, and the lack of support for making those changes with friends outside of the programme. A sense of embarrassment about being in a “weight reduction” programme or “health programme” was also expressed by some participants, despite the Programme Team’s efforts to minimize the emphasis on weight reduction. Children noted that there were many changes as a result of their participation in the programme, including: changes to their

nutrition knowledge; changes to their attitude towards food and exercise; behavioural changes to eating and exercise; physical changes they saw in themselves; changes they saw in their families and communities. Children also noted other areas of their lives they saw a difference, though again, these areas were not explicitly targeted by the programme. These areas included being more responsible at home and school. The children generally enjoyed the programme and the facilitators who ran the sessions, though there was some feedback regarding specific types of activities that were played during the sessions. In general the participants enjoyed the social connection that the programme provided to other children and families, and this was one of the main motivators for attending the programme and staying involved in it.

5.1.3 Facilitator and key stakeholder interviews

Interviews with facilitators and key stakeholders covered a variety of topics including barriers and enablers to collaboration an implementation, barriers that may inhibit participation, issues relating to the sustainability of the programme and suggestions for improvement. Facilitators were also asked about changes they had noticed in the participants as a result of the programme. Key enablers to collaboration included positive communication and consultation within Active Families and with other organisations and having goals for enhancing collaboration. It was clear from the interviews that there are a number of issues inhibiting collaboration of particular mention is lack of buy-in from PHOs, issues with communication, and disconnected PHOs. The implementation of the programme was spoken about by both facilitators and key stakeholders, enablers to successful implementation of the programme included appropriate programme planning and organisation, the adaptable nature of the programme and staff, open communication, supportive environment for participants, and having a strong, committed Active Families. Barriers to implementation were also noted and it was evident from the facilitator and key stakeholder interviews that one of the major issues that hinder the implementation of the programme is the referral process where low referrals into the programme, a lack of dedicated personnel in primary care organisations and short GP consultation times were all identified as limiting the success of the programme. Barriers for the implementation of the programme included poor communication systems in primary care practices where issues such as staff turnover resulted in difficulty in maintaining high levels of awareness of the programme amongst primary care practitioners. Facilitators in particular mentioned lack of participation from parents and children, issues with preparing participants to finish the programme, differing reporting requirements, and a lack of resources. Facilitators noted some behavioural and physical changes seen in participants including increases in activity levels, changes in nutrition; it was also noted that while there are some positive changes in body measurements, they are often not positive. Key barriers for participants mentioned by both facilitators and key stakeholders included time and transport, income and perceptions of the programme. In order for the programme to be sustainable a number of points were raised including the need to maintain the focus on lifestyle changes, enhance collaboration and partnerships with other organisations, and ensuring the programme is always relevant to the community. An issue with funding hinders the sustainability of the programme. Both facilitators and key stakeholders are satisfied with the programme and facilitators noted positive reactions from participants. Some suggestions for improvement were given and included improving the referral system, enhancing collaboration, increasing training, staff and resources and reviewing some of the programme content.

5.1.4 Quantitative findings

Lifestyle questionnaire

A comparison of baseline and three-month assessments showed the following statistically significant results:

- Children reported drinking soft drinks less frequently at three months post programme
- Children showed improved knowledge about vegetable intake in order to be healthy
- Children reported an improved perception of their knowledge to make healthy choices for themselves
- Caregivers showed improved knowledge about appropriate meat intake in order to be healthy

A comparison of baseline and six-month assessments showed the following statistically significant results:

- Children reported drinking energy drinks, juice and cordial less frequently at six months after programme initiation
- Children showed improved knowledge about vegetable intake in order to be healthy
- Children showed improved knowledge about meat intake in order to be healthy
- Children reported an increased time undertaking physical activities
- Children reported an improved perception of their knowledge to make healthy choices for themselves

Children's physical outcomes

At the three-month assessment, the following outcomes were observed:

- Children had significantly gained height
- No significant weight loss was observed
- Children had significantly reduced girth
- Children had significantly improved their physical performance as measured through step-ups and runs.

At the six-month assessment, the following outcomes were observed:

- Children had significantly gained height
- Children had significantly gained weight
- No significant girth reduction was observed
- Children had significantly improved their physical performance as measured through step-ups only.

5.2 Is the programme working?

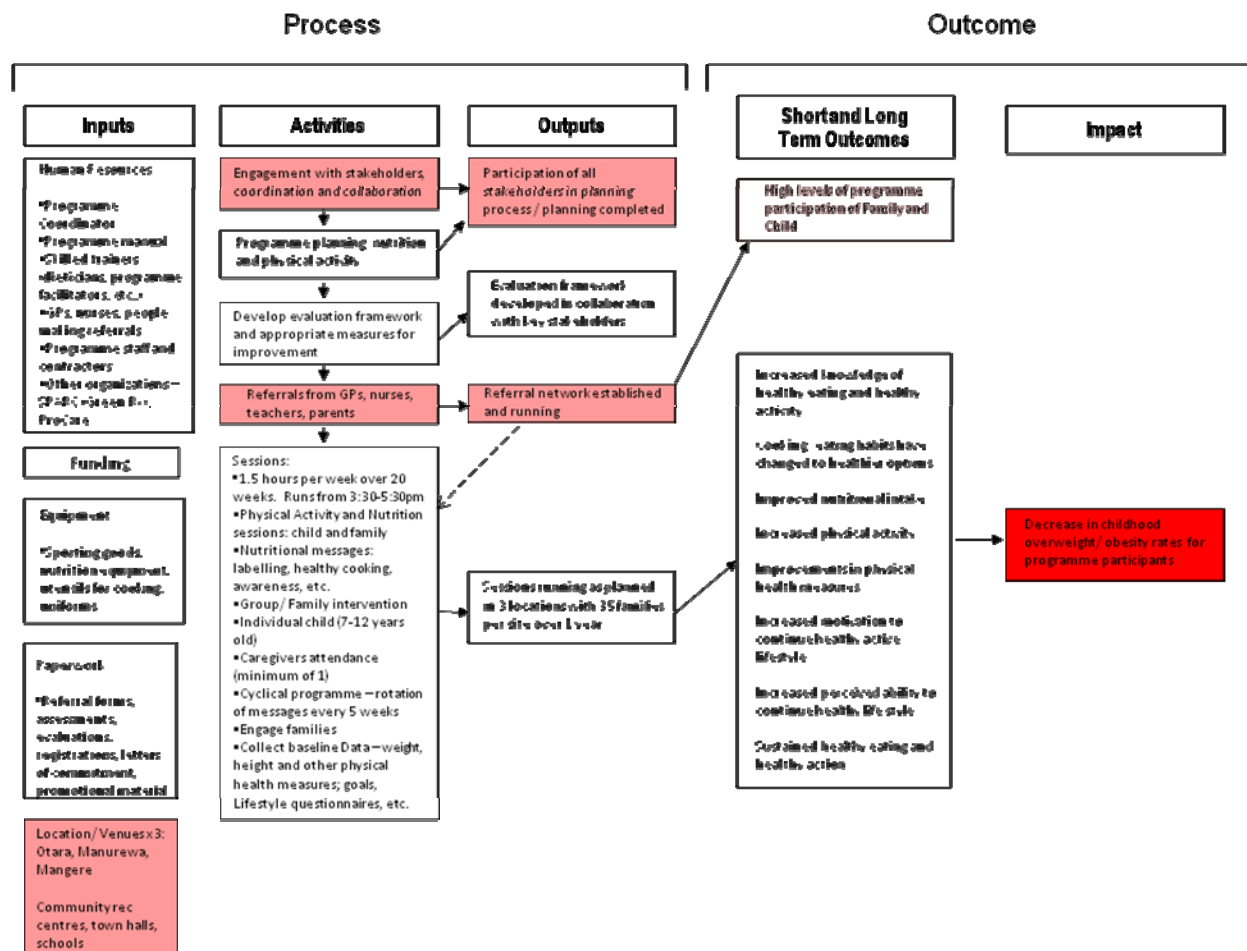
In order to respond to the question of whether the programme is working as intended, we must consider to what extent the programme worked as expected and outlined through the programme logic. What elements did not work as intended, and what unexpected elements were not included in the programme logic but were actually present? Secondly, by answering our evaluation questions (see section 3.1) we aim to provide a synthesized picture of the development and implementation of the programme.

5.2.1. Review of the programme logic

In consultation with the Active Families stakeholder group, the programme logic was reviewed. Figure 2 shows the reviewed programme logic. Shaded boxes represent stages where programme implementation did not match expectations or assumptions outlined in the programme logic diagram drafted at the beginning of the programme. Programme venues particularly for one of the programme sites were not ideal. The space led to fewer possibilities of physical activity being implemented, which in turn led to participant comments about lack of variability in programme activities despite their being a generally high level of satisfaction among participants in the focus groups. Although this venue has now been changed to a more appropriate one, this limitation was acknowledged among stakeholders particularly during the first 18 months of the programme. There was consensus around the group that engagement with some stakeholders was more difficult than expected, adversely affecting the equal and full participation of all stakeholders in the planning and implementation process. Similarly, establishing the referral network constituted a large and time consuming activity that took approximately two years to establish and is still considered not to be ideal in its present form. The level at which the referral networks were malfunctioning directly impacted programme participation and in turn affected the amount of data available for the evaluation, which ultimately may have limited the statistical power to detect significant changes in outcomes (see section 6.1 for limitations of the evaluation). A dotted line has been added linking the referral networks established and running to the main programme activity which is the Active Families sessions in order to emphasize how contingent the programme's main activity is to the proper functioning of the referral network. The last part of the programme logic that was discussed among stakeholders was the appropriateness of the desired programme impact in the timeframe of the programme. Despite the fact that a decrease in childhood overweight and obesity among programme participants is ultimately an appropriate long term goal for health promotion programmes to have, weight loss must be seen as a gradual process and six months may not be sufficient time to bring overweight and obese children below the weight / height or BMI threshold for overweight and obesity. As discussed in section 1.2, many projects assess their impact using behavioural outcomes such as increased physical activity and improved nutrition given their well established link to better health outcomes.

In conclusion, stakeholders agreed that the vision of the programme expressed through the programme logic was generally appropriate, highlighting that the age of participants should remain the same and caregiver participation was still considered key to the implementation and success of the programme. The issues identified pertained more to the process of implementation, and lessons learned along the way would help facilitate processes to produce better outcomes.

Figure 2 Revise Programme Logic



5.2.2 Answering the evaluation questions

The following is a summary of the evaluation questions posed in collaboration with stakeholders, and which guided the evaluation of the Active Families programme.

1. Has there been buy in from all stakeholders?

Answers to questions 1, 2 and 4 are related to each other. Stakeholder buy in at the development phases of programme development was an initial barrier to the programme, and a few organizations ultimately did not continue in partnership with Otara Health to develop Active Families. PHO involvement and engagement was less than ideal, and there is recognition that in order to ensure that a wide range of the population has the possibility of benefitting from this programme, further PHO involvement is needed. One PHO's requirement that the programme only be open to participating PHOs' registered population also posed difficulties in recruitment. Nonetheless, current stakeholders are actively engaged and committed to the success of the programme, yet the question remains whether more stakeholders should be brought on board in order to broaden the scope and population that can access the programme.

2. Does the referral system work?

The referral system is one of the weakest points of the programme. One of the participating PHOs initially required that programme participants be channelled only from GP surgery referrals, but then

failed to generate the expected number of referrals, the programme was severely limited by low did not produce the anticipated volume of referrals. This was further compounded by many referrals not fitting recruitment criteria, which meant that even fewer participants were able to be enrolled in the programme. A low number of GPs and practice nurses referring children to the programme meant a low number of children participating at each site, which in turn affected the numbers available for the evaluation of the programme, affecting the statistical power to detect significant differences in outcomes. Stakeholders must understand that their investment in the programme is not fully served when referrals are not provided in the numbers needed to sustain a programme like Active Families. An ongoing review of the referral process is needed to ensure a constant inflow of participants into the programme.

3. Are educational messages appropriate?

The family lifestyle questionnaire indicated that there was already an appropriate level of knowledge among caregivers about the appropriate amount of foods by food groups necessary to be healthy, although the questions assessed knowledge in very general terms. This question is not easily answered with the data analysed in this report, however it would seem that knowledge about nutrition becomes secondary to other motivational factors around food choices and physical activity as the programme progresses.

4. What are the barriers and facilitating factors affecting participation?

By the very nature of the methods used in this evaluation, people not fully taking part in the programme were not reached in order to assess what affected their participation. However, general impressions indicate that caregiver employment commitment, transportation, time issues and lack of motivation affected programme participation. These are the factors that are to be expected in any health promotion activity. However, once a captured audience is reached, participating families seem to be enormously motivated by the warmth and professionalism of the programme team, and are motivated by their child's and their own gains in health throughout the programme.

5. Are sessions being implemented according to plan? Are referred participants attending the programme regularly?

Programme monitoring data was not analysed.

6. Have participants improved in their perceived ability to follow healthy eating and healthy action?

Children reported reduced consumption of soft drinks, juices, cordials and energy drinks. Children also report an improved perception about their knowledge to make healthy choices for themselves, as well as increased time reported performing physical activities at six months after programme initiation. Caregivers report improved knowledge about appropriate meat intake in order to be healthy.

7. Have participants increased their level of physical activity?

Children reported increasing the time they spent on favourite physical activities per week, from close to 30 minutes a week, to 1-2 hours per week after six months of participating in the programme.

8. Do participants improve capacity in aerobic physical activity measures?

Children significantly improved their aerobic physical activity measures between baseline and three-months after the programme started, as well as between baseline and the six-month assessment.

9. Have participants improved their nutrition?

There is no quantitative evidence of improved nutrition during the lifespan of the programme, however qualitative reports from successful participants and their families indicate positive and sustained changes in participants' nutrition.

10. Have participants lost weight and girth?

Although the Active Families Programme Team was careful not to explicitly promote weight loss as a programme objective, it was nevertheless a part of the programme framework. The debate remains as to whether weight loss is an appropriate indicator for the age range targeted by this programme. No weight loss was registered between baseline and three months, and a significant weight gain was registered at six months, although this was paired by a significant height gain. As for girth, there was a significant reduction in girth between baseline and three months, yet no significant reduction in girth between baseline and six months.

6. Issues to consider

Based on the analyses conducted to date for this evaluation as well as consultation with key stakeholders during the final evaluation workshop, there are a number of issues to consider in finding the way forward for this programme:

6. There is a perceived general lack of knowledge about Active Families and what it does among health care professionals, and high staff turnover is a factor hindering the understanding about this programme among referring entities. Although there now seem to be processes in place to ensure ongoing reminders at ProCare clinics, for example, more thought may need to be given as to how to create more visibility for the programme. This is particularly relevant in thinking how the programme wishes to market itself, increasing ownership among all stakeholders.
7. The outcome data seems to indicate that the most dramatic changes in the child's physical measurements (outcome measures) occur within the first three months of the programme, with participants reaching a plateau during the second three month period. The Programme Team must consider whether this is expected and appropriate, or whether more efforts are needed to continue motivating children beyond the half-way point.
8. It is evident that the referral process needs to be reviewed in order to ensure sustainability of the programme. Despite it having improved in the last few months, referral processes are not ideal in their current form. The programme may consider whether additional resources should be invested in creating posters, calendars or other incentives that will serve as a memory jog for referring practices, as well as create more visibility for the programme. A key issue ensuring that programme ownership and a sense of partnership is promoted (as mentioned in point number 1), which may be facilitated through the identification of a key contact person for practices.
9. There seems to be a lack of consensus as to what the ultimate aim of the programme is. Although Active Families programme staff are careful to point out that the programme is a

lifestyle change programme, even key stakeholders mistakenly called the programme a 'weight loss programme'. Participants also identify programme aims in terms of weight reduction, possibly due to conversations that they have had with referring nurses or physicians. The assessment process including weighing participants may also contribute to the ongoing perception that Active Families is about weight control. The Programme Team must consider how this perception affects the programme and its participants, if at all. Once again, the programme must think about marketing itself in a way that coincides with the vision and the mission of the programme (i.e. lifestyle programme versus weight reduction programme).

10. In terms of the evaluation and monitoring progress, it became evident that some questionnaire items may not have been very sensitive to changes in behaviour or knowledge as was initially hoped. Qualitative accounts of participants' learnings throughout the programme, and quantitative accounts of participants' knowledge change did not match. Having questions that ask "in the last week (seven days), how many times during the week did you have breakfast?", for example, may have given a better indication of sustained change than the current wording (see Appendices E and F for current wording). If the programme chooses to continue self-monitoring and evaluating the programme, all data collection tools may need to be revised to ensure questionnaire sensitivity.

6.1 Limitations of this report

1. A common limitation of focus groups conducted with children is that they often will tell the facilitator what they think they want to hear, despite efforts to not lead them in the discussion.
2. Parent focus groups were comprised of successful and enthusiastic participants to the programme. Participants who struggled through the programme, were less engaged or who faced barriers to attending the programme were less likely to agree to participate in a focus group. This limits to some extent what can be reported about factors impacting lack of participation. Having said this it is important to remember qualitative data is not meant to be generalized to large populations. It is meant to provide more in depth information about some participants' experience with the programme.
3. Small sample sizes in the quantitative database limited the extent of statistical analyses that were able to be conducted. When small sample sizes are present, non statistically significant results may be due to a lack of power to detect significant changes.

6.2 Concluding statement

The Active Families Programme implemented by Otara Health Incorporated in South Auckland is a unique programme, targeted for the local population of South Auckland. The staff possesses intimate knowledge of the local area and its population, and has developed a programme that is well liked and appreciated by participating families. The Active Families programme has shown creativity and adaptability in overcoming many of the barriers encountered in the process of developing and implementing the programme. Data analysed for this report show that the Active Families

programme has had an impact on participating children, particularly on their level of physical ability, as well as reducing sugary drink consumption and increasing time spent on physical activity.

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Appendices

Appendix A: Parents/ guardians focus group questions

1. How did you end up as participants in this programme?
2. What reasons did you have for deciding to participate in the programme?
3. Describe some of your experiences with the programme.
4. What changes have occurred in your beliefs about healthy eating and exercise?
5. How has this programme affected your lifestyle? (prompts: diet, self-management, exercise) Can you give some examples?
6. What are some of the barriers (difficulties) in doing the lifestyle changes suggested to you by the programme?
7. What are some of the things that helped you to make the changes suggested by the programme?
8. Have you noticed any changes in your family and immediate community since you started attending the programme? Please explain.
 - a. How easy or difficult is it to get the rest of your family engaged and excited about the changes this programme prompts you to make?
9. What kept you motivated to continue participating, and to follow the advice given?
10. How useful were the programme resources?
11. Do you have any suggestions for the programme?

Appendix B: Children focus group questions

Introduction: Drawing

[Ask children to draw themselves and their family when they are healthy]

Perceptions of Active Families

12. What things do you like about being a part of this programme?
13. What things do you not like about being a part of this programme?

Effects of Active Families and barriers/enablers

14. Has anything changed in your life since you started coming to this programme
 - a. Changes at home?
 - b. Changes at school?
 - c. Changes after school?
15. What do you think of these changes?
16. What has made it easier to make these changes?
17. What has made it harder to make these changes?

Family Support

18. How do you feel about your mum/dad coming along with you to these sessions?
19. Is it fun for you to come with a family member? What makes it fun or not fun to come here with family?
20. Do you talk about what you do here when you get home?

Future directions and sustainability

21. What are you going to do when you stop coming along to these sessions?
22. Do you want to keep doing the activities?

Appendix C: Programme facilitator interview questions

Programme Development

1. Please describe how the Active Families programme was developed. How did you first become involved in the Active Families programme. What was that process like?

Collaboration with stakeholders

2. How easy or difficult has it been to engage people into the programme? How well is the referral network functioning?
3. Have you perceived any barriers for participants to come to Active Families sessions?
4. How are participants responding to the programme?

Barriers and enablers to implementation

5. What are some of the barriers you have encountered in implementing the programme? Have you been able to overcome these barriers? Do you think these barriers threaten the future implementation of the programme?
6. What factors enabled you to carry out the programme?
7. What are some future suggestions for training and for the programme?

Training and Support

8. How well prepared did you feel to carry out the Active Families sessions?
9. Did you feel supported to carry out the activities as an Active Families facilitator? Why or why not?
10. What other support would you need in order to ensure you successfully carry out your activities?
11. What has kept you engaged with the programme?
12. Anything you feel that we missed?

Appendix D: Key stakeholder interview questions

Programme Development

1. Please describe how the Active Families programme was first developed. What was that process like? What other stakeholders did you engage with?

Collaboration with stakeholders

2. Since the beginning of the programme, how easy or difficult has it been to engage with partners of the programme? What have been the main issues in collaboration throughout this programme?
3. How satisfied are you with the programme and what you've been able to see of it so far? In your view, is it doing what it intended to do?

Barriers and enablers to implementation

4. What are some of the barriers that the programme has encountered? What are your concerns with regards to the programme?
5. What factors have enabled the implementation of the programme? Are there any aspects of the programme that you are particularly pleased with?
6. What do you think should be the future directions for this programme?
7. Anything you feel that we missed?

Appendix E: Child lifestyle questionnaire



ACTIVE FAMILIES CHILDS LIFESTYLE QUESTIONNAIRE



CHILDS NAME:

DATE:

Circle month of assessment: **1** **3** **6** **9**

Please take your time to complete this questionnaire with the assistance of the Active Families Representative. This questionnaire will be completed at your initial meeting, then the 3rd month and the 6th month.

1. Please circle how often you eat breakfast?

Never	some days	most days	every day	0
	1-3	4-6	7	<i>(days per week)</i>

2. Please circle how often you take a packed lunch to school?

Never	some days	most days	every day	0
	1-3	4-6	7	<i>(days per week)</i>

3. Circle how often you buy food from the Tuck Shop, Dairy or Takeaways?

Never	some days	most days	every day	0
	1-3	4-6	7	<i>(days per week)</i>

4. Circle how many servings of fruit you have a day?

(Example 1 whole apple = 1 serving)

0 1 2 3 4 5

5. Circle how many servings of vegetables you have a day?

(Example 1 whole carrot = 1 serving)

0 1 2 3 4 5

10. I feel like I will be able to eat healthily now and in the future.

- Strongly Agree Agree Disagree Strongly Disagree

11. I enjoy eating healthy food. (Tick on box)

- Strongly Agree Agree Disagree Strongly Disagree

12. Tick the box below to show how you travel to and from school?

- Walk Car
 Bus Bike
 Other (please explain) _____

13. I enjoy taking part in physical activities like sports, walking, running or riding a bike. (Tick one box)

- Strongly Agree Agree Disagree Strongly Disagree

14. Can you name 3 physical activities you do after school and circle the amount of time you spend on these activities a week?

(Paper run, Sport teams, Cultural groups, Chores, after school programs, Walking etc)

Physical Activity	Circle total time spent for each activity			
1: _____	30mins	1- 2hrs	2-4hrs	4hrs-more
2: _____	30mins	1-2hrs	2-4hrs	4hrs-more
3: _____	30mins	1-2hrs	2-4hrs	4hrs-more

15. Place a tick next to your favourite screen time activity, and circle how many hours a day you spend undertaking this activity.

Screen time activity **Time spent over a day**

- | | | | | |
|---------------------------------------|--------|---------|--------|-----------|
| <input type="checkbox"/> Watching TV | 30mins | 1- 2hrs | 2-4hrs | 4hrs-more |
| <input type="checkbox"/> Computer | 30mins | 1- 2hrs | 2-4hrs | 4hrs-more |
| <input type="checkbox"/> Play station | 30mins | 1- 2hrs | 2-4hrs | 4hrs-more |
| <input type="checkbox"/> Xbox | 30mins | 1- 2hrs | 2-4hrs | 4hrs-more |

16. I feel like I will be able to do the right amount of physical activity now and in the future.

- Strongly Agree Agree Disagree Strongly Disagree



Appendix F: Family lifestyle questionnaire

ACTIVE FAMILIES

FAMILIES LIFESTYLE QUESTIONNAIRE



Name:

Date:

Relationship to Child:

Circle month of assessment:

1 3 6

Please take your time to complete this feel free to ask for assistance at any time.

This questionnaire will be completed at you initial meeting, then again at the 3rd and 6th month.

1. How often does your family eat breakfast together

Never	some days	most days	every day	
0	1-3	4-6	7	(days per week)

2. How often do you send your child to school with a packed lunch?

Never	some days	most days	every day	
0	1-3	4-6	7	(days per week)

3. Please circle how often your family eats a main meal together per week.

Never	some days	most days	every day	
0	1-3	4-6	7	(days per week)

4. Please circle how often your family has takeaways per week.

Never	some days	most days	every day	
0	1-3	4-6	7	(days per week)

5. Place a circle around the person or people who mainly shop for food in your household.

Mum

Dad

Child

Other (please name) _____

6. Place a circle around the person or people who mainly prepare the family meals in your household.

Mum

Dad

Child

Other (please name) _____

7. Please circle the barriers that stop your family from making healthy food choices (you may circle more than one).

Cost

Time

Transport

Limited Choices

Knowledge

Don't like taste

Other (please explain) _____

8. Please circle the number that shows how important it is for your family to make healthy choices?

1

2

3

4

5

Not important

Not sure

Very important

9. Please write down 3 Physical Activities you do together as a family (Household chores, outdoor activities outings, walking etc) and write the amount of time spent on these activities a week:

Physical Activity

Circle total time spent for each activity

1. _____

30mins 1-2 hrs 2-4 hrs 4-more

2. _____

30mins 1-2 hrs 2-4 hrs 4-more

3. _____

30mins 1-2 hr s 2-4 hrs 4-more

10. Please circle the barriers that stop your family from being physically active. (You may circle more than one)

Work

Motivation

Time

Don't like it

Transport

Cost

Health Issues

Other (please explain) _____

