



Birmingham healthy Eating  
& Active Lifestyle for Children Study



National Prevention  
Research Initiative



## **BEACHeS Study Intervention Package: A Summary of the Evaluation Findings**

### **1. Introduction**

The BEACHeS Study was funded by the National Prevention Research Initiative, to develop a package of activities aimed at preventing obesity in young children, focusing on South Asians. A total of 8 schools in Birmingham took part, 4 of which were used to test out the package of activities, and 4 of which were “controls” and did not have access to these activities.

During the delivery of the intervention package, several different methods were used to evaluate the various components, concentrating on the feasibility and acceptability of each component. This document presents a summary of the findings from these evaluations.

#### **1.1. The intervention package evaluated in the BEACHeS study**

The intervention package that was developed in the BEACHeS study comprised of two broad elements; increasing children’s physical activity levels through school, and increasing skills of parents and families through activity-based learning. Within each element, there were several different components which are outlined below.

1. Increasing children’s physical activity through school
  - a. A variety of activities introduced within the school day
  - b. An incentive scheme to encourage children to undertake more physical activities out of school
  - c. Attendance at a ‘Villa Vitality’ day, a day run by Aston Villa Football Club which has both physical activity and healthy eating elements.
  
2. Increasing skills of families through activity-based learning
  - a. Cooking courses run through school for parents, or parents and children
  - b. Week-end leisure activities for families, and information signposting local leisure opportunities
  - c. Community walking programmes through training of walk leaders.

### **2. Evaluation by component**

For each of the intervention components a summary of the aim, the way it was delivered and the methods and findings of the process evaluation are described below.

#### **2.1 Physical activities within the school day**

##### 2.1.1 Aim

This component was aimed at increasing the overall amount of time that children are physically active within the school day.

### 2.1.2 Delivery

There were three elements, both curricular and extracurricular, that were introduced into schools. A) 'Wake Up Shake Up': This is a short (5-10 minutes) organised dance or exercise routine performed to music, designed to be done once or twice a day. It is undertaken in children's usual clothing and can be done inside or outside. B) Organised playground activities at lunch times through the training of play leaders. C) 'Take 10': key-stage specific curricular material which introduces 10 minutes physical activity linked to learning of subjects such as maths, literacy and science.

### 2.1.3 Evaluation methods

Observation of children's physical activity levels in school, interviews with teachers and self-completion questionnaires administered to children and parents were the methods used to evaluate this component.

### 2.1.4 Evaluation findings

#### *Wake Up Shake Up*

This scheme was implemented successfully in 3 of the 4 intervention schools in the BEACHeS study, with the training undertaken and the intention of its introduction in the 4<sup>th</sup> school. Frequency of sessions and participation levels varied widely across the schools, but in one school, it was delivered twice a day. Participation was more if it was compulsory rather than optional. Questionnaire responses from the children suggested that it was generally well received, but a few children were reluctant to join in. The scheme was well received by staff, who were generally enthusiastic about running Wake Up Shake Up in the school, but identified problems such as lack of time and lack of space as potential barriers to success.

#### *Organised playground activities*

All schools accessed training of play leaders and attempted to introduce a system of organised playground activities at lunch times. It was apparent from the interviews with school staff that the success with which the schemes were implemented varied hugely between schools. A key factor for successful implementation appeared to be having an enthusiastic member of staff to implement the scheme and inspire the play leaders. The school that had the least success with this scheme was where the lunchtime supervisors were trained as play leaders but did not have a member of staff to lead them. Provision of playground equipment and using a zoning system in the playground appeared to support play leaders in running organised games. Findings from the children's questionnaires and the staff interviews indicated that this scheme was well received by children and generally well supported by school staff.

#### *Take 10 curricular material*

This curricular material was implemented in two of the four BEACHeS intervention schools. In the schools where this had been introduced, its success depended on the enthusiasm and motivation of the class teachers. Thus, within the two schools which had implemented this material, usage varied from class to class. The teachers responsible for the introduction of Take 10 were keen to continue and expand its use. Some members of staff identified lack of training and familiarity with the material as barriers to its implementation.

#### *Summary*

Overall, school staff with a responsibility for health were enthusiastic and committed to introducing these schemes to increase physical activity levels of children within the school day, and all schemes seemed to be acceptable to the children. Individual school characteristics and individual differences between staff members strongly influence the success of each element in the different schools. Responses from the

questionnaire to parents suggested that the majority of parents felt that the amount of physical activity their children were undertaking in school had increased over the last year.

## **2.2 Incentive scheme to encourage children to undertake physical activity out of school**

### 2.2.1 Aim

This component was aimed at increasing the amount of time outside of school hours that children spent doing leisure activities that involve a physical element.

### 2.2.2 Delivery

An incentive scheme was set up whereby all children received a sticker collection card from school and information on local sports and leisure venues. They were told that they could collect a sticker each time they attended these venues and those collecting the most stickers would receive a prize. The prize was not specified at the start of the scheme. Participating venues were fully briefed on the scheme and were supplied with posters and stickers to give to children attending with collection cards.

### 2.2.3 Evaluation methods

A telephone survey of the venue staff, assessment of returned sticker collection cards, interviews with school staff, and questionnaires to children were methods used to evaluate this component.

### 2.2.4 Evaluation findings

The major issue with this component was the participation of the venues. Only a minority of venues that were initially recruited to the scheme were actively participating after some months. One problem identified was that not all reception staff were aware that the venue was participating in the scheme, and even if they were aware, they did not always have access to stickers. Change of management and staff turnover since the introduction of the scheme was also a problem in some venues. In these cases, the scheme had not been introduced and then transferred to the new management, or communicated to new members of staff. There was also a perception at some venues that there was a lack of interest so they were no longer willing to participate.

In general, school staff felt that incentive schemes were a good way of motivating children, but some problems with this scheme were identified in addition to the issues with venue participation. It was felt that in order to maintain the motivation of the children, the sticker collection needed to be reinforced by class teachers on an ongoing basis, and the children needed a specific goal to work towards. Some staff interviewed perceived that a set time frame and a tangible prize would have been beneficial.

Children were generally enthusiastic about collecting stickers. However, there were difficulties with their receiving stickers from the majority of venues, and as a result, they became de-motivated with this incentive programme. Parents who had received the signposting information to local sporting and leisure venues mostly found it useful. The majority of parents were also in favour of incentive schemes to encourage children to undertake physical activities.

## **2.3 Attendance at a 'Villa Vitality' day**

### 2.3.1 Aim

This intervention component aimed to encourage children to undertake physical activity and eat healthily by delivering positive health-related messages through an iconic sporting institution.

### 2.3.2 Delivery

Target classes in the schools participating in the intervention arm of the BEACHeS study attended a 'Villa Vitality' day. Half the day was spent with Aston Villa coaches, exercising and learning football skills, and the other half of the day was an interactive learning session on healthy eating and healthy lifestyles. Certain classes also received an interactive classroom based session following their Villa Vitality day.

### 2.3.3 Evaluation methods

Interviews with school staff and questionnaires administered to children and parents were used to evaluate this component. In addition, pre- and post intervention questionnaires were administered to children to assess their reported knowledge, attitudes and health behaviour.

### 2.3.4 Evaluation findings

This intervention component was extremely popular both with children and school staff, with high (near 100%) attendance. Children attending Villa Vitality days reported significantly greater levels of physical activity outside of school time in the short term compared to those not attending. Most parents did not appear to be aware of their children attending 'Villa Vitality' days.

## **2.4 Cooking skills courses for parents and children, run through the school**

### 2.4.1 Aim

This component was aimed at increasing skills and confidence of family members with regard to healthy cooking, and therefore ultimately influencing the whole family's nutritional intake.

### 2.4.2 Delivery

Two types of healthy cooking courses were run in two of the BEACHeS study intervention schools. The first was a 5 week course entitled 'Cook and Taste'. Courses were publicised in several ways and were repeated in the same schools at different time slots to make them accessible to a wider range of family members. The second course was a 5 week course for parents to learn healthy cooking with their children, entitled 'Cook with Kidz'. Parents were invited to participate in this course in school time and their children took time out of class to join them. To support these courses, healthy recipes were distributed to all families through BEACHeS study newsletters.

### 2.4.3 Evaluation methods

Uptake rates, participant pre and post-course questionnaires (parents only), and interviews with the school staff involved with the BEACHeS study were methods used to evaluate this component.

### 2.4.4 Evaluation findings

Uptake, in general was lower than capacity, although there was better uptake in the school with an enthusiastic parent link worker. There was some drop out over the 5 weeks of the course but over 90% attended 3 or more sessions. The courses were well received by those who attended. Compared to parents who did not participate,

participants had lower baseline confidence in their cooking ability. Following the course, participants had higher levels of reported confidence than at baseline in shopping for healthy food and cooking healthy meals. They also reported that the family was eating more healthily. The Cook with Kidz course was well attended in one school but less so in the other school, where recruitment of parents to all aspects of the study had been difficult. The idea of parents learning about healthy cooking with their children was popular with parents, children and school staff. Supporting information such as healthy eating tips and recipes in newsletters was well received by parents.

## **2.5 Week-end activities for families and signposting information on local sporting and leisure activities and venues**

### 2.5.1 Aim

This component was aimed at equipping parents and families with the knowledge and skills to undertake physical activities with their children in their leisure time (week-ends and holidays).

### 2.5.2 Delivery

Parents were given information on local sporting and leisure venues and events. They were also invited, through the school, to bring their children along to six different taster sessions run on Saturdays throughout the school year. Transport to and from the sessions was arranged and the activities were free to participants. Activities ranged from cricket and football, to archery, climbing and dry-slope skiing.

### 2.5.3 Evaluation methods

Uptake of the taster sessions, school staff interviews, and questionnaires to parents and children were the methods used to evaluate this component.

### 2.5.4 Evaluation findings

Despite ongoing publicity of the sessions and the minimal financial costs to families, uptake of the taster activity sessions was generally poor. It was noted that uptake did increase throughout the year, and the activities were very well received by those who did attend. Thus, it is possible that there was a 'word of mouth' effect operating. Some events were more popular than others, notably the cricket session, run at Edgbaston Cricket Ground. This may reflect cultural preferences relating to different sporting activities. The school staff felt that these taster activity sessions were a good idea, but were disappointed by the uptake rates. The taster sessions were extremely resource intensive to run, both in terms of cost and staff time, as parents and children had to be met at school on a Saturday and transported to and from the venue. Parents in general (>90%) found the information signposting healthy activities and venues useful, and school staff also felt this had been useful for parents and served to motivate them to try out local facilities.

## **2.6 Community walking programmes through training of walk leaders**

### 2.6.1 Aim

This component aimed to increase walking by families with children and other community members through organised leisure walks led by a local community member.

### 2.6.2 Delivery

Community volunteers were recruited through schools to become trained walk leaders. Training was available to the volunteers, which would equip them to organise and lead walks in their local community.

### 2.6.3 Evaluation

This component proved unfeasible, as there was a lack of volunteers. Even those who expressed an initial interest did not attend the training. Despite repeated efforts to recruit community volunteers, only one person attended a training session, but they were unable to organise any walking trips.

### **3. Summary**

The evaluation findings described above have led the BEACHeS study team to refine the intervention package that was tested, and we are currently in the process of securing funding to test out the refined package in a larger study that will take place across the West Midlands.

The refined intervention package will consist of initiatives to increase children's physical activity in school, the Villa Vitality course for school children, the healthy cooking sessions for parents and children held within the schools, and the information for families that signposts local facilities and venues for physical and leisure activities.

**The BEACHeS team would like to take this opportunity to thank all participating schools for their ongoing commitment to and enthusiasm for the study.**