

# The Special Olympics Community-Based Health Promotion Programs

## Program Evaluation Report:

### ■ Executive Summary

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Special Olympics Collaborating Research Center  
Institute on Disability and Human Development

Rehabilitation Research and Training Center on Aging with  
Developmental Disabilities (RRTCADD): Lifespan Health and Function

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**Special Olympics**





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# Executive Summary

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In 2009, Special Olympics (SO) funded five one-year community-based health promotion programs around the world with grants of up to \$20,000 each. The sites included two in Africa (Kenya and Mauritius), one in Europe (Belgium), and two in the United States (Arizona and Indiana). The purpose of these projects was to effect changes in SO athletes' physical fitness, dietary behaviors, and hygiene behaviors. This report presents the results of the evaluation conducted by the SO Collaborating Research Center at the Institute on Disability and Human Development, the University of Illinois at Chicago (UIC). The evaluation assessed the following areas: 1) program impact on athletes (health status, knowledge, attitudes, and behaviors); 2) program satisfaction among coaches and SO athletes; and 3) process and structural variables associated with implementation of the health promotion programs.

The results presented here include quantitative findings from four of the five sites that had adequate data and qualitative findings from all five sites. Data were collected from athletes and informants at baseline and at the end of the projects and from coaches and program administrators at the end of the projects through surveys and interviews.

## Summary of Findings

The athletes experienced many positive health benefits from the health promotion programs. The most common significant findings that occurred across multiple sites were the following athlete benefits:

- Increased percentage with normal body weight (decrease for overweight/obese and increase for underweight).
- Increased time per week dedicated to physical activity.
- Increased exercise knowledge.
- Improved hygiene behavior.
- Increased confidence to perform exercise.
- Increased participation in Special Olympics activities.

Additionally, one site that incorporated a walking program showed results in mileage walked by athletes that more than doubled the initial goal.

Athletes participating in the health promotion programs reported that the key aspects of the programs that they liked were playing sports (football, running, etc.) and learning about what foods are nutritious and how to maintain good hygiene.

In addition to benefits to athletes, the programs had other benefits to the families and to the SO programs. At one of the sites, families developed an ongoing support group. The SO programs' community partnerships with universities, schools, and hospitals helped provide needed expertise for implementation and at the same time helped to raise awareness of the importance of health promotion for individuals with intellectual disabilities in their communities. Several of the programs continued to function after the funding ended as a result of new partnerships with business entities and, in one site, development of social entrepreneurship initiatives of the newly formed parent group.

Important themes emerged across sites regarding developing, implementing, and sustaining community based health promotion programs. Key contributors to the success of programs were high commitment of staff, coaches, family members and volunteers to the program; dedicated professionals in the health field helping to create and adapt the curriculum; and strong partnerships with universities, schools, and hospitals. Also, programs benefited from training on developing health promotion programs prior to developing their proposals, in that it helped them articulate objectives and learn about existing programs and curricula. Suggestions for improvement of the health promotion programs included an increased use of visuals in the health education, more parental (or residential staff) support to reinforce behavioral change at home, and creation of more culturally relevant material.

As in the earlier evaluation conducted of the SO community-based health promotion programs, this evaluation demonstrated that these health promotion program investments can result in benefits to the athletes and to the SO sites and that these programs can successfully be expanded internationally. In fact, some of the greatest benefits were seen in the African sites that developed sustainable programs.

## Lessons Learned

This evaluation of the community-based health promotion programs across several international sites resulted in several key lessons learned regarding successful implementation of such programs:

- **Importance of Partnerships.** Universities, schools, hospitals, and clinics partnered with SO sites by providing health education support, volunteer coaches, facilities to hold sessions, and exercise space. For example, Kenya partnered with Kenyatta University and Mathare primary schools; Mauritius with the Foundation of George Charles school; Indiana with Ball State University and Indiana State University; and Arizona with the Arizona Recreation Center for the Handicapped, St. Joseph's Hospital, and Grand Canyon University. These types of partnerships are essential for successful community health promotion programs.
- **Presence of Incentives.** From food to trinkets, athletes enjoyed the incentives offered to them encouraging them to be healthy in both their diets and fitness level. They helped increase the motivation and participation of the athletes.
- **Sustainability.** The partnerships with other organizations, including businesses, were key to sustaining the program. For example, in Mauritius, the program received continued funding from a business enterprise. Contacts with universities seemed *very important* in continuation of contacts with faculty and students that could help out the programs. Continued involvement of families was also important in sustaining programs. In Kenya, the family support group that formed is sustaining the program and developing a business.
- **Training.** Professional training in developing programs and translating the interventions in culturally relevant ways were both mentioned as important. Particularly for developing countries, input in developing their proposals may prove beneficial. Principal investigators and program coordinators from Kenya, Mauritius, and Indiana came to the University of Illinois at Chicago for a grant-writing training workshop to assist them in writing their proposals.



- ***Having a Coordinator.*** A barrier for successful implementation of these health promotion programs is insufficient staff time to manage the program. One suggestion is to have a professional coordinator that expends time and effort in managing the program.
- ***Role of Families.*** The role of families cannot be underestimated in generalization of skills and health behaviors to other settings. It is important that athletes are given the means and the support to lead healthier lives in their day-to-day home living. Secondly, it is important to include families in program evaluations. Thirdly, having parent groups during and after the interventions can foster mutual support and increase parental self-esteem.

# Introduction

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The Institute on Disability and Human Development at the University of Illinois at Chicago (UIC) conducted a program evaluation for Special Olympics (SO) of the Health Promotion Pilot Projects at two American sites (Arizona, Indiana), two African sites (Kenya, Mauritius), and one European site (Belgium). This evaluation assessed the following: 1) process and structural variables associated with implementation of the health promotion programs, 2) program satisfaction among coaches and SO athletes, and 3) program impact on participants. It also compared the quality of the programs with those that were evaluated in the 2005 evaluation.

## Background

SO sent out a request for proposals to SO programs to develop community-based health promotion projects that would include strong, sustainable health promotion partnerships at the local level. These were one year projects that received up to \$20,000 of funding.

In 2005, UIC researchers completed an evaluation of the first round of these grants, which included six sites. That evaluation helped guide the development and implementation of subsequent requests for proposals, including this one. An overall conclusion of the 2005 evaluation was that programs needed significant support in developing and implementing these programs. While taken as a whole the projects did show some positive psycho-social and health outcomes immediately after the programs (such as improved perceived health, reduced body weight, increased fiber intake, improved self-confidence, more positive attitudes toward exercise, and decreased barriers to exercising),

there was also considerable variability across programs.<sup>1,2</sup> In terms of implementing the health promotion programs, several themes emerged. They stressed the importance of obtaining buy-in from athletes, coaches, family members, and caregivers before starting the program; implementing structured recruitment strategies; formalizing existing relationships; and identifying and incorporating time, money, and transportation constraints and assessment protocols into the design. Given the short implementation time frame of one year, it was also recommended that programs use or adapt existing curricula that may already be available and empirically tested rather than use their resources to develop new material.

To help improve the quality of the proposals and to help offer resources and strategies that addressed the recommendations of the 2005 evaluation, SO and UIC staff conducted a workshop in March of 2009. Four sites attended. Three of the sites that attended the workshop applied for the grants and were successful in their applications: Kenya, Mauritius, and Indiana. Belgium and Arizona did not attend, but submitted strong proposals and also received funding.

## Approach

The evaluation included the following steps:

- 1) development of an evaluation protocol (with review from SO).
- 2) baseline assessment protocols sent to each of the sites.
- 3) site visits from UIC staff 8-10 months after the program implementation to

conduct follow-up interviews and observations with program staff, community partners, athletes, and family members and to collect post-intervention follow-up data on outcomes for participants analysis and write up of evaluation, including recommendations on implementing health promotion programs across a diversity of cultures.

- 4) feedback and discussion with SO staff.

The assessment protocol included the following aspects:

#### *Process Measures*

- 1) What were the project goals?
- 2) To what degree were these goals attained?
- 3) What did the programs actually do in terms of type of health promotion activities, topics covered in training, number and attendance of participants for various activities, frequency and duration of activities, and curriculum used or developed?
- 4) Did programs establish partnerships?
- 5) How strong and sustainable were these partnerships?
- 6) To what extent were arrangements made to sustain the programs?
- 7) What barriers and facilitators existed in developing, implementing, and sustaining these programs?
- 8) What resources and supports do programs feel they need to maximize their success?

#### *Satisfaction Measures*

- 1) What improvements in SO athletes were reported by informants (families and coaches)?
- 2) How satisfied were the SO athletes with the health promotion programs?
- 3) What did the athletes like the most and least about the programs?
- 4) How satisfied were the coaches with the programs? What did they think were the programs' strengths and weaknesses?
- 5) How satisfied were the community and partners with the programs? What did they think were the programs' strengths and weaknesses?

#### *Outcome Measures for Participants*

- 1) What were participants' basic demographics (age, gender, living arrangement, racial/ethnic background)?
- 2) What changes occurred in their health status (BRFSS questions)?
- 3) What changes occurred in their health behaviors (physical activity and nutrition)?
- 4) To what extent did their participation in SO activities change?
- 5) What changes occurred in their knowledge, attitudes (self-efficacy, expected outcomes, social-emotional barriers), and access barriers to health promotion activities?

## **Community-Based Health Promotion Program**

Table 1 on the next page lists program descriptions and aims of each site.

Table 1. Project Descriptions and Aims

Project Description	Project Aims
<p><b>Special Olympics Arizona</b> implemented a 10-week <i>Health Education Program</i>. One hour and fifteen minutes long <i>Steps to Your Health</i> classes were held once a week with athletes and coaches.</p>	<p>Increase knowledge among SOAZ coaches regarding the specific health issues of athletes.</p> <p>Educate and promote healthy lifestyle habits among athletes.</p> <p>Decrease athletes' BMI, high blood pressure, weight, and body fat percent.</p>
<p><b>Special Olympics Indiana</b> implemented a 28-week <i>Athens or Bust!</i> walking program teamed up with the state wide InShape Indiana walking campaign. About 500 athletes along with some families participated in 20 health clubs across Indiana. In addition to walking, the program coordinators were trained to implement health education using weekly health education messages.</p>	<p>Documentation for a minimum of 12,000 miles walked by SOIN athletes, an amount equivalent to walking to and from Indianapolis, IN to Athens, Greece.</p> <p>Increase physical activity and health knowledge of at least 500 participants.</p> <p>Increase nutrition and healthy life style knowledge and water consumption</p>
<p><b>Special Olympics Kenya</b> implemented the <i>Living Well with a Disability</i> health promotion program. Each weekend participants (athletes and parents) had two 45 minute sessions covering hygiene and nutrition and a one hour physical activity session.</p>	<p>Educate athletes and their caregivers on good health behaviors in areas of nutrition, general hygiene, and physical fitness.</p>
<p><b>Special Olympics Mauritius</b> implemented a 24-week <i>Improving the Health and Lifestyle of ID Athletes</i> health promotion program targeted to athletes and their parents. A curriculum on nutrition, hydration and physical activity was developed together with an instructional video.</p>	<p>Educate athletes, their families, and teachers on the importance of physical activity, good nutritional habits, and good hydration habits.</p>
<p><b>Special Olympics Belgium</b> implemented the <i>Healthy Me</i> health promotion program. Residents and staff participated in six bi-weekly 45-60 minutes educational games (interactive small-groups workshops) on healthy eating habits.</p>	<p>Introduce healthy eating habits to the residents and staff of the seven residential facilities in Le Carrosse.</p> <p>Increase nutrition and healthy food knowledge of residents and staff.</p> <p>Improve dietary habits of residents: more vegetables, fruits, whole meal cereal products, and water.</p>

Table 2. List of Measures

Measures	Baseline	Follow-up
<b><i>Process Measures (Process Evaluation Interview)</i></b>		
<ul style="list-style-type: none"> <li>▪ Project goals</li> <li>▪ Degree goals attained</li> <li>▪ Program activities (type of health promotion activities, type of topics covered in training, number, and attendance of participants for various activities, frequency, and duration of activities and curriculum used or developed)</li> <li>▪ Partnerships established</li> <li>▪ Strength and sustainability of partnerships</li> <li>▪ Barriers and facilitators in developing, implementing, and sustaining programs</li> <li>▪ Resources and supports programs report needing to maximize their success</li> <li>▪ Impact of UIC workshop attendance (if attended) on planning process, implementation, evaluation, sustainability, and relationship with partner</li> </ul>	<b>X</b>	<b>X</b> <b>X</b>  <b>X</b> <b>X</b> <b>X</b>  <b>X</b>  <b>X</b>
<b><i>Satisfaction Measures (Program Satisfaction Interview)</i></b>		
<ul style="list-style-type: none"> <li>▪ Improvements in SO athletes reported by informants (families and coaches)</li> <li>▪ Satisfaction of SO athletes with the health promotion programs</li> <li>▪ What athletes report liking the most and least about the program</li> <li>▪ Satisfaction of coaches, families, and community partners with the program</li> <li>▪ Coaches, families, and community partners' reports of the program's strengths and weaknesses</li> </ul>		<b>X</b>  <b>X</b>  <b>X</b>   <b>X</b>
<b><i>Outcome Measures for Athletes (Athlete and Informant Questionnaire)</i></b>		
<ul style="list-style-type: none"> <li>▪ Basic demographics (age, gender, living arrangement, racial/ethnic background)</li> <li>▪ Health status</li> <li>▪ Health behaviors (physical activity and nutrition)</li> <li>▪ Participation in SO activities</li> <li>▪ Knowledge, attitudes (self-efficacy, expected outcomes, social-emotional barriers), and access barriers to health promotion activities</li> </ul>	<b>X</b>  <b>X</b> <b>X</b> <b>X</b> <b>X</b>	 <b>X</b> <b>X</b> <b>X</b> <b>X</b>

Program staff at each site collected data including interviews with athletes, fitness assessments, and informant surveys at baseline and after the program. Informants (coaches or families) completed a questionnaire on athletes' involvement in SO before and after the program and athletes and families or guardians responded to a satisfaction survey after the program. The UIC research team conducted a site visit and interviews with program administrators and partners at the completion of the program, which provided information on process and structural variables.

The purpose of this report is to present the findings of both quantitative data from four sites (Belgium site did not have sufficient data) and qualitative data from five sites. The nature of the program varied across the five sites. This report presents the findings of each site separately. In addition to lessons learned from each site, the evaluation focused on outcomes for athletes including their health, health behaviors, health promotion attitudes, participation in SO, and satisfaction with the program (see Table 2 on the previous page).

We assessed outcome measures for athletes through athlete interviews and an informant questionnaire that included the following outcome measures:

*Health status.* Health status was assessed by asking athletes to report their overall perception of their health ranging from *excellent or very good* (1) to *poor* (4) and the informant's rating of the athlete's health on a 5-point Likert scale from *excellent* (1) to *poor* (5). Informants were also asked whether athletes have the 6 most common chronic health conditions (high blood pressure, high cholesterol, diabetes, asthma,

heart disease, and malnutrition).

Anthropometric assessments including body weight, height, hip, and wrist circumference, blood pressure, and body fat were also recorded when applicable. Body Mass Index (BMI) was calculated by using the formula below:

$$\text{BMI} = \frac{\text{weight}(\text{kg})}{\text{height}^2(\text{m}^2)}$$

Body weight status was grouped into four categories based on the BMI value:

Underweight (BMI < 18.5 kg/m<sup>2</sup>), Normal (25 > BMI ≥ 18.5 kg/m<sup>2</sup>), Overweight (30 > BMI ≥ 25 kg/m<sup>2</sup>), and Obese (BMI ≥ 30 kg/m<sup>2</sup>).

*Health behaviors.* Health behaviors were assessed by asking athletes about personal hygiene behaviors (hand washing, teeth brushing, body washing) and asking informants about athletes' health behaviors on physical activity, smoking, alcohol consumption, dietary habits, water consumption, oral hygiene (teeth brushing and flossing), and sun protection. Possible personal hygiene scores ranged from 1 to 7; a higher score indicates better personal hygiene.

*Participation in SO activities.* Participation in SO activities was assessed by asking informants the length of participation in SO, type of SO sports involvement, number of training sessions, and competition in the past six months.

*Knowledge.* Knowledge was assessed by asking athletes the *Exercise Knowledge*<sup>3,4</sup> and the *Nutrition Knowledge* questions. Relevant pictures were displayed along with the questions to help athletes better understand the questions.

*Attitudes.* Attitudes were assessed by the *Exercise Self-Efficacy Scale*,<sup>4,5</sup> *Exercise*

*Outcome Expectation Scale*,<sup>4,6</sup> and *Barriers to Exercise Scale*.<sup>4,7</sup> The *Exercise Self-Efficacy Scale* assesses a person's degree of certainty (or confidence) to engage in physical activity. A high score indicates more confidence to perform physical activity and exercise. The *Exercise Outcome Expectation Scale* assesses perceptions and attitudes towards physical activity. A higher score indicates a more positive attitude towards physical activity and exercise. The *Barriers to Exercise Scale* assesses reasons that it might be difficult for a person to engage in physical activity. It contains two subscales (social-emotional and access barriers). A lower score indicates fewer barriers and more support for exercising and engaging in physical activity.

*Satisfaction.* Program satisfaction was assessed by asking athletes how happy they were with SO programs overall ranging from *very unhappy* (1) to *very happy* (4); and how helpful was the information covered and the SO coach ranging from *not at all helpful* (1) to *very helpful* (4). Two open-end questions regarding what they liked the most and liked the least were included.

Informants were asked about overall program satisfaction on a 4-point Likert scale from *not satisfied at all* (1) to *highly satisfied* (4). Informants were also asked to report strengths and weakness of the program.

Indiana Special Olympics developed its own athlete interview questionnaires which included health behaviors (physical activity, smoking), self-rated health status, and dietary habits (consumption of fruits and vegetables, dairy products, bread and cereal, whole grains, fried foods or chips, and food labels). Stage of change for exercise, eating healthy food, weight

loss, eating vegetables, water intake and smoking cessation were also assessed.

# Conclusion

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## Summary of Findings

The athletes experienced many positive health benefits from the health promotion programs. The most common significant findings that occurred across multiple sites were benefits to the athletes:

- Increased percentage with normal body weight (decrease for overweight/obese and increase for underweight).
- Increased time per week dedicated to physical activity.
- Increased exercise knowledge.
- Improved hygiene behavior.
- Increased confidence to perform exercise.
- Increased participation in SO activities.

Additionally, one site that incorporated a walking program showed results in mileage walked by athletes that more than doubled the initial goal.

Athletes participating in the health promotion programs reported that the key aspects of the programs that they liked were playing sports (football, running, etc.) and learning about what foods are nutritious to eat and how to maintain good hygiene.

In addition to benefits to athletes, the programs had other benefits to the families and to the SO programs. At one of the sites, families developed an ongoing support group. The SO programs' community partnerships with universities, schools, and hospitals helped provide needed expertise for implementation of SO programs and at the same time helped to raise awareness of health promotion for

individuals with intellectual disabilities in their communities. Several of the programs continued to function after the funding ended as a result of new partnerships with business entities and/in one site development of social entrepreneurship initiatives of the newly formed parent group.

Important themes emerged across sites regarding developing, implementing, and sustaining community based health promotion programs. Key contributors to the success of programs were high commitment of staff, coaches, family members and volunteers to the program; dedicated professionals in the health field helping to create and adapt the curriculum; and strong partnerships with universities, schools, and hospitals. Also, programs benefited from training on developing health promotion programs prior to developing their proposals, in that it helped them articulate objectives and learn about existing programs and curricula. Suggestions for improvement of the health promotion programs included an increased use of visuals in the health education, more parental (or residential staff) support to reinforce behavioral change at home, and creation of more culturally relevant material.

As in the earlier evaluation conducted of the SO community based health promotion programs, this evaluation demonstrated that such health promotion program investments can result in benefits to athletes and to the SO sites. Also, it showed that the program can successfully be expanded internationally. The earlier evaluation was limited to sites in the United States, while this one included European and African



countries. In fact, some of the greatest benefits of these health promotion initiatives were seen in the African sites that successfully developed sustainable programs.

Several of the changes instituted since the earlier evaluation, such as increased funds, hands-on training sessions on developing a health promotion proposal and a sustainable program, and use of existing curricula, seemed to result in better proposals with clearer and more attainable objectives. The sites that attended the training had stronger proposals with more successful programs.

## Lessons Learned

This evaluation of the community-based health promotion programs across several international sites resulted in several key lessons learned regarding successful implementation of such programs:

- **Importance of Partnerships.** Universities, schools, hospitals, and clinics partnered with SO sites by providing health education support, volunteer coaches, facilities to hold sessions, and exercise space. For example, Kenya partnered with Kenyatta University and Mathare primary schools; Mauritius with the Foundation of George Charles school; Indiana with Ball State University and Indiana State University; and Arizona with the Arizona Recreation Center for the Handicapped, St. Joseph's Hospital, and Grand Canyon University. These types of partnerships are essential for successful community health promotion programs.
- **Presence of Incentives.** From food to trinkets athletes enjoyed very much the incentives offered to them encouraging them to be healthy in both their diets and fitness level. They helped increase the motivation and participation of the athletes. For example, in Arizona, athletes reported that one of their favorite aspects of the program were the prizes and snacks. In Indiana, walking club T-shirts, necklaces, and charms sponsored by SO were listed amongst the benefits for participants.
- **Sustainability.** The partnerships with other organizations, including businesses were keys to sustaining the program. For example, in Mauritius the program received continued funding from a business enterprise. Contacts with universities seemed *very important* in continuation of contacts with faculty and students that could help out the programs. Continued involvement of families was also important in sustaining programs. In Kenya, the family support group that formed is sustaining the program and developing a business.
- **Training.** Professional training in developing programs and translating the interventions in culturally relevant ways were both mentioned as important. Particularly for developing countries input in developing their proposals may prove beneficial. Principal investigators and program coordinators from Kenya, Mauritius and Indiana came to the University of Illinois at Chicago for a grant-writing training workshop.

- ***Having a Coordinator.*** A barrier for successful implementation of these health promotion programs is insufficient staff time to manage the program. One suggestion is to have a professional coordinator that puts time and effort in managing the program.
- ***Role of Families.*** The role of families cannot be underestimated in generalization of skills and health behaviors to other settings. It is important that athletes are given the means and the support to lead healthier lives in their day-to-day home living. Secondly, it is important to include families in program evaluations. Thirdly, having parent groups during and after the interventions can foster mutual support and increase parental self-esteem.

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