### Additional file 1 – Components of Intervention

<table>
<thead>
<tr>
<th>Physical activity Program</th>
<th>Center-based Intervention</th>
<th>Food Service</th>
<th>Home-based Intervention</th>
<th>Community-based Intervention</th>
</tr>
</thead>
</table>
| **Objectives**            | • Providing 60-90 min of structured and free play  
• Increasing intensity level  
• Developing physical fitness | • Improving staff knowledge and skills in physical activity  
• Enhance staff confidence in leading the outdoor sessions  
• Improving staff wellness | • To promote healthy eating  
• Increase the quality of food services | • Increasing the awareness of childhood obesity and environmental support |
| **Intervention activities** | • Provision of gross motor activity equipment  
• Designed physical education curriculum for outdoor play  
• Daily 10-minute recess  
• Monitored outdoor physical activity curriculum  
• Designed and provided portable play equipment  
• Placed drawings of playing outdoor games  
• Children making their play toys | • 20-hour training sessions included child growth and development, design of physical activity and gross motor programs, pedagogical methods and instructional strategies  
• In-vivo observation and hand-on practices  
• Staff health screenings  
• Staff nutrition education | • Two training sessions included nutrition, food service management for groups, menu design following nutrition standards and regulations  
• Demonstration and hands-on practice of food preparation and cooking techniques | • Monthly health education seminars  
• 12 newsletters for family members  
• 2 Children’s Fitness and Health Handbook  
• 3 family events organized  
• Making of a simple play equipment (bi-monthly) with children  
• Interactive discussion on specialized internet website |
| **Development of intervention activities** | • Research team and invited experts  
• Based on the Guidelines for 3-6 Years Old Children’s Learning and Development in China and the Curricular Guidelines for Preschool Education | • Research team and invited experts  
• Based on the Nursery Teacher Professional Development Standards | • Nutrition experts  
• Based on the Chinese Children’s Nutrition and Feeding Guidelines and Children’s Meals Management Routines in Childcare Centers | • Research team and invited experts  
• Based on the Guidelines for Family Engagement in Early Childhood Education  
• Recommendations on Strengthening the Work of Urban Community Sports |
| **Delivery of intervention** | • Childcare center staff  
• Research assistants  
• Nurse practitioner  
• Children and his/her parents | • Expert panel  
• Childcare center staff  
• Research staff | • Pediatric dietitians  
• Peer services workers | • Community Health Center  
• Research staff  
• Childcare center staff |
| **Training provided** | • Use of activity cards  
• Leading outdoor play activities  
• Gross motor development | • Workshops on training and hand-on practices  
• Counseling on physical | • Workshops on training  
• Presentation skills  
• Counseling on nutrition | • Workshops on training  
• Installation equipment  
• Organized family events |
|                          |                           | • Workshops on training  
• Presentation skills  
• Counseling on nutrition | • Delivery of session materials  
• Presentation skills |                           |
<p>| | | | | |
|                          |                           |                           |                           |                           |</p>
<table>
<thead>
<tr>
<th>Evaluation</th>
<th>activity and healthy eating</th>
<th>regulations and standards</th>
<th>Developed interactive internet website</th>
</tr>
</thead>
</table>
|                  | • Energy expenditure and minutes of MVPA  
• Daily activity expenditure  
• Activity intensity by heart rate  
• Children attendance (illness-related absence) | • Attendance in training sessions  
• Evaluation survey on the satisfaction and impacts of the teacher training  
• Physical fitness assessment | • Developed interactive internet website                                                                 |
|                  | • Average of total energy intake  
• Intakes of carbohydrate, protein, and vegetables | • Parent engagement in intervention activities  
• 60-item Liker-scale health knowledge test  
• Reported exercise  
• Fitness assessment | • The number of play equipment renovated  
• Footage of playground area renovated  
• Number of events hosted in the intervention community |

| Report on exercise  
| Fitness assessment  
| The number of play equipment renovated  
| Footage of playground area renovated  
| Number of events hosted in the intervention community |