

## **Obesity setting in earlier than the adolescence phase – according to a pioneering survey on physical fitness of urban school children**

### ***Bangalore-based EduSports conducts first-ever pan-national in-curriculum fitness and sports skills survey***

#### **Key findings of the survey:**

- *25% of children above 8 years are obese / over-weight and 18% in the ages of 7 years and below*
- *Nearly 23% of the 4098 children surveyed, aged between 5 and 14 years, possessed BMI higher than the ideal*
- *19% of the children can be classified underweight as they possessed BMI ratios lower than 19*
- *There is no significant difference in the levels of fitness among children in metros and non-metros, nor between boys and girls*
- *The study also measured the levels of flexibility, muscle strength and endurance among the children*
- *Children showed improvement across five fitness indicators after a 9-month controlled fitness-led physical education program was conducted by EduSports in their schools*
- *Endurance went up by over 17%; abdominal strength increased by 37.5%; percentage of children with the right BMI increased from 54.96% to 67.72 %*

**Bangalore, August 24, 2010:** The first-ever survey on physical fitness of Indian urban school children reveals that obesity sets in even before adolescence, the period which was, until now, believed to impact children's physical activity and eating patterns. Nearly 23% of the 4098 children, aged between 5 and 14 years, surveyed across the country possessed a high Body Mass Index (BMI) ratio than ideal. BMI is one of the key indicators of overall fitness of an individual, and is related directly to obesity-related malaise. On the other hand, low BMI ratios have direct correlation to immunity-related malaise. According to this survey, conducted by Bangalore-based EduSports, the integrated sports-management company that works closely with school children, 19% of children showed low BMI ratios. Together, a whopping 42% of the children surveyed did not possess ideal BMI ratios.

However, a nine month, in-curriculum, controlled fitness-led physical education program in their respective schools, done on a selective group of 667 children, revealed improvement across the five fitness indicators that they were assessed upon. Endurance of children went up by over 17%; abdominal strength increased by 37.5%; percentage of children with the right BMI increased from 54.96% to 67.72 % and flexibility increased by almost 4%.

EduSports undertook the survey to identify the overall fitness levels of children in Indian schools as that would be a key indicator to the child's performance across several factors including mental agility, immunity to disease and sports excellence. The study was built into the curriculum of 21 schools across 15 cities (National Capital Region, Mumbai, Bangalore, Chennai, Mangalore, Lucknow, Indore, Raipur, Coimbatore, Mohali, Baroda, Amritsar, Panipat and Moga). It involved a cross sectional study (a single assessment of the sample) across 4098 children (2200 boys and 1898 girls) in the age group of 5 to 14 years. The factors that the children were measured on included Body Mass Index (identifies children as underweight/healthy/over-weight & obese), aerobic (measured by making children run/walk for 600 meters) & anaerobic capacities (measured by making children cover 30 meters in a sprint), Muscle strength (Measured by Sit & Reach activity, Sit Ups, Standing Long Jump), endurance and flexibility.

From the sample of 4098 children a subset of 667 children, in three schools (Bangalore, Raipur and Mangalore) were then trained on controlled program with fitness-led age appropriate sports / PE through age appropriate props for a period of 9 months from September 2009 to June 2010. At the end of nine months these children were measured again on all five fitness indicators; aerobic capacity, anaerobic capacity, flexibility, muscle strength and body composition. This programme incorporated components related to both fitness and skills. The skill-related component of the study measured factors such as coordination, balance and agility.

The study on children, irrespective of gender and location, revealed that there was very little difference in the fitness levels of children and there was no significant difference in the health levels of children between metros and non-metros. 54% of children in metros had right BMI and 57% in the non-metros had right BMI. The study also indicates that 25% of children above 8 years are obese / over-weight compared to 19% in the ages of 7 years and below. The abnormal BMI ratio also reflected lower flexibility and muscle strength and endurance level of the children.

***Significant improvement across fitness indicators, in 9-month, nutrition-exclusive, controlled physical education programme***

The study of fitness indicators, at the end of the 9-month assessment revealed that the average BMI of the group increased by about 10%. The number of underweight, overweight and obese children came

down by 5%, 6% and 1.2%, respectively. Average endurance levels of the group increased by 17% and flexibility increased by 4%. Challenges designed on fitness as well as skill were received well among the children. This is revealed in the improvements in muscle strength - collectively, a function of the strengths of the abdominal muscles, upper and lower body. Abdominal strength increased by 37.50%, and strength of lower and upper body was 5% and 8% respectively.

**Ms. Reshma Nayak, Programme leader, Yenepoya School, Mangalore** (one of the schools that participated in the study) said, “With the lifestyles of children becoming more passive and the space constraints that exist in the cities today, children do not have an opportunity to play enough and have become prone to many health hazards. To address this concern and give children an opportunity to engage in regular physical activities, we thought of revisiting our sports curriculum. We associated with EduSports and their programme has given a structure to sports / play in our school which helps in enhancing overall health of children. The programme helps us keep track of each child’s health through measurable key health indicators like BMI, strength and aerobic capacity. The child’s fitness is assessed with the help of tools / props like medicine ball, endurance and muscular strength test etc. and we are provided with reports of the child’s fitness. Not only assessment of students’ fitness but comprehensive lesson plans and well trained instructors who work with us very closely are also integral part of our Physical Education programme. A structured approach of providing physical education in consonance with nutritional information has made our school sports curriculum thorough and extensive and therefore has helped us in keeping a track of students’ health and given us direction towards planning better health for our students.”

**Mr. Saumil Majmudar, Co-founder & Director, EduSports** said, “We undertook this survey because we wanted to identify the gaps in physical education for young children today. Our educational system favours academics over everything else, compromising the overall development of children. We believe that physical education has to be built into the curriculum and is not entirely outside the purview of a school’s concern. As our study indicates, fitness can be stepped up within the school premises, and well within the sports curriculum. We all know that fitness affects immunity to disease, and even mental abilities. There are studies globally correlating physical fitness to performance in academics. The Edusports study only reiterates the imperative to step up the awareness for the need for physical education within the school curricula.” On the response of the children surveyed, Majmudar added, “During our assessment we found that the children responded better to the program that included fitness indicator-based training alongside skill based programmes. This indicates that if a child likes what he is doing, he will volunteer to do that and will not have to be pushed for it”.

**About EduSports:**

EduSports is India's First and Only Private Initiative providing Integrated Sports Management Services to Schools. EduSports designs and administers Sports Curriculum in partner schools. These Schools 'Outsource' their 'Sports Curriculum' to EduSports. EduSports specializes in designing effective curricula using structured physical activity and sports as a pedagogical tool for developing mental skills, behavioural skills, and physical conditioning in growing children. EduSports is working with Schools all over the country helping them fulfill the requirement of school going children for high quality, Holistic Education. EduSports' pioneering "Integrated School Sports Management Platform", SOAR™, has been designed by a distinguished Advisory Panel comprising leading Sports Personalities, Psychologists, Educationists, and Professionals specifically for the K-12 Schools and Colleges. Currently EduSports is associated with more than 61 schools, reaching out to more than 50,000 odd children across India and they aim to be working with 100 schools by the end of the year. More information about EduSports can be had at [www.edusports.in](http://www.edusports.in)