

# Assessment and Reconstruction of AAHPER Test for Sri Lankan Youth Aged 10 – 17

Somarathna RDAM <sup>1#</sup>, Jeganenthiran S<sup>1</sup> and Sabaanath S<sup>2</sup>

<sup>1</sup>Department of Sport Sciences and Physical Education, Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka, P.O. Box 02, Belihuloya.

<sup>2</sup> University of Jaffna, Jaffna, Sri Lanka.  
# amsmadu@gmail.com

## ABSTRACT

The physical fitness is the ability to carry out daily tasks with vigorous and alertness without undue fatigue. A fit and healthy person will live longer and Youth are backbone to nation. Therefore, the research question raised to assess the fitness level of the Sri Lankan youth and objective of the study was to construct a new fitness test norms for Sri Lankan age 11, 12, 13, 14, 15 and 16 years old youth boys and girls based on AAHPER test. To achieve the purpose of this study 1000 girls and boys (age 10-17 years) selected from various provinces in Sri Lanka by random sampling method. The data were collected using the AAHPER test batteries which consist with six test items 50-yard run, standing broad jump, shuttle run, pull-up for boys and flex arm hang for girls, sit up and 600 yards run respectively and was analyzed by using SPSS. From the results, following percentile norms were created 5<sup>th</sup> 10<sup>th</sup> 15<sup>th</sup> 20<sup>t</sup> 25<sup>th</sup> 30<sup>th</sup> 35<sup>th</sup> 40<sup>th</sup> 45<sup>th</sup> 50<sup>th</sup> 55<sup>th</sup> 60<sup>th</sup> 65<sup>th</sup> 70<sup>th</sup> 75<sup>th</sup> 80<sup>th</sup> 85<sup>th</sup> 90<sup>th</sup> 95<sup>th</sup> 100<sup>th</sup>. From the results it was concluded that, newly constructed norms are slightly lower than AAHPER youth fitness test battery. Hence it was recommended that, newly constructed fitness norms are appropriate to categorize fitness level of the Sri Lankan youth. Further studies are essential to enhance the reliability and validity of the newly constructed norms.

Key words: physical fitness, Youth age, AAHPER

## 1. INTRODUCTION

Physical fitness is defined as the ability of an individual to competently and capably perform everyday tasks without excessive fatigue, and with enough energy remaining to enjoy spending free

time, as well as to resolve unusual situations of sudden and unforeseen emergency. The expression "Physical Fitness" is used nowadays to describe a person's ability to utilize the machinery of his body in sports and exercise. (COUNCIL1983)

Health and fitness are important for all individuals throughout life span. To achieve and maintain those qualities, an individual need to effectively handle disease and illness. Everybody desires a long and healthy life and exercise has a part to play in this. In one aspect, the body can be said to commence ageing from the moment it is born, However difference systems of the body age at a different rate. Many people continue a very active life both physically and mentally well up to their old age.

### A. Objective of the study

The objective of this study was to design a youth fitness test model for Sri Lankan youth aged 10 – 17, to assess the fitness level of Sri Lankan youth aged 10-17 and to study the feasibility of AAHPER youth fitness test in 10-17 years old. The research mainly based on "Assessment and reconstruction of AAHPER test for Sri Lankan youth aged 10 -17.

The researcher designs the research under the youth physical fitness of Sri Lanka. To measure the physical fitness of youth, use more standard tests in many countries. The AAHPER test is one of famous test for assess the youth physical fitness. As a Sri Lankan youth, still don't have the standard test specific percentile norms' value to measure the youth physical fitness. The revised AAHPER Youth Fitness Test is a battery of six test items designed to give a

measure of physical fitness for both boys and girls in grades 5-12. The tests were selected to evaluate specific aspects of physical status. The tests are: pull-up (with flexed-arm hang for girls)for judging arm and shoulder girdle strength; flexed leg sit-up for judging efficiency of abdominal and hip flexor muscles; shuttle run for judging speed and change of direction; standing long jump for judging explosive muscle power of leg extensors; 50-yard dash for judging speed; and 600-yard run (with optional runs of 1 mile or 9 minutes for ages 10-12 or 1 1/2 miles or 12 minutes for age 13 and older)for judging endurance.(Hunsicker and Reiff, 1976)  
When consider more about this, could assess and reconstruct the youth fitness test model

based on AAHPER test. The age category is 10-17 years old based on AAHPER test.

## 2. METHODOLOGY

To achieve the purpose of this study 1000 girls and boys (age 10-17 years) selected from various provinces in Sri Lanka by random sampling method. Field based research design used for this research design. The data were collected using the AAHPER test batteries which consist with six test items 50 yard run, standing broad jump, shuttle run, pull-up for boys and flex arm hang for girls, sit up and 600 yard run respectively and was analyzed by using SPSS.

## 3. RESULT AND DISCUSSION

Table 1.11 years old

PERCENTILE	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
<b>BOYS</b>																				
50 YD S	9	8.8	8.8	8.7	8.6	8.5	8.5	8.4	8.4	8.4	8.3	8.2	8.1	8	7.9	7.9	7.6	7.5	7.4	7.1
SBJ	4	4.1	4.1	4.1	4.2	4.4	4.6	4.7	4.8	4.8	4.9	5	5	5	5.2	5.2	5.4	5.6	5.9	6
SR	12.2	11.7	11.6	11.4	11.2	11	11	11	10.9	10.8	10.8	10.7	10.7	10.6	10.6	10.5	10.4	10.2	10.2	10
PU	0	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	5	7
SU	16	18	20	20	21	23	25	28	30	30	30	30	31	32	32	34	35	35	36	38
600 YD R	3.8	3.1	3.06	3.02	3	2.99	2.8	2.61	2.56	2.5	2.4	2.36	2.31	2.26	2.26	2.25	2.25	2.21	2.19	2.15
<b>GIRLS</b>																				
50 YD R	9	8.8	8.8	8.7	8.6	8.5	8.5	8.4	8.4	8.4	8.3	8.2	8.1	8	7.9	7.9	7.6	7.5	7.4	7.1
SBJ	4	4.1	4.1	4.1	4.1	4.2	4.4	4.6	4.7	4.8	4.8	4.9	5	5	5	5.2	5.2	5.4	5.9	6
SR	12.2	11.2	11.6	11.4	11.2	11.1	11	11	10.9	10.8	10.8	10.8	10.8	10.6	10.6	10.5	10.4	10.2	10.2	10.2
FAH	0	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	5	7
SU	16	18	20	20	21	23	25	28	30	30	30	30	31	32	32	34	35	35	36	38
600 YD R	3.8	3.1	3	3	3	2.99	2.8	2.61	2.56	2.5	2.4	2.36	2.31	2.26	2.26	2.25	2.21	2.19	2.18	2.15

Table2.12 years old

PERCENTILE	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
<b>BOYS</b>																				
50 YD S	8.3	8.8	8.6	8.6	8.6	8.4	8.2	8.2	8.2	8.1	8.1	8	7.9	7.8	7.6	7.5	7.4	7.3	7.2	6.2
SBJ	4.1	4.1	4.4	4.6	4.8	4.8	4.9	5	5	5	5.1	5.2	5.2	5.3	5.4	5.4	5.6	5.6	5.8	5.8
SR	12.8	11.5	11.4	11.2	11.1	11	11	10.9	10.8	10.6	10.5	10.4	10.3	10.2	10.1	10	9.9	9.3	9.2	9.1
PU	1	2	3	3	4	4	4	5	6	6	6	7	7	8	10	11	12	13	14	15
SU	15	20	20	23	25	26	26	27	28	29	30	30	30	31	31	32	34	34	35	40
600 YD R	3.12	3.09	3	3	2.31	2.28	2.28	2.26	2.24	2.24	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.1	2.1	2.9
<b>GIRLS</b>																				
50 YD R	11.3	9.6	9.5	9.4	9.2	9.1	9	8.9	8.8	8.7	8.6	8.5	8.3	8.3	8.1	7.9	7.6	7.5	7.3	7
SBJ	4.1	4.1	4.2	4.3	4.4	4.5	4.5	4.6	4.8	4.8	4.9	5	5	5.1	5.2	5.2	5.3	5.4	5.6	6.2
SR	13.3	12.7	12.6	12.4	12.2	11.8	11.8	11.6	11.6	11.5	11.5	11.5	11.4	11.4	11.2	11.1	11.1	10.9	10.7	10.5
FAH	5	6	7	8	8	9	9	9	10	10	10	11	11	12	12	12	12	13	14	15
SU	14	15	15	18	18	20	20	21	21	22	24	24	25	26	27	28	29	30	33	39
600 YD R	3.2	3	3	3	3	2.74	2.64	2.6	2.5	2.44	2.42	2.41	2.4	2.4	2.4	2.4	2.38	2.35	2.32	2.3

Table3.13 years old

PERCENTILE	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
BOYS																				
50 YD S	8.5	8.3	8.2	8.2	8	8	7.9	7.9	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.2	7	6.7	6.2	6.2
SBJ	4.1	4.8	5	5.1	5.1	5.1	5.1	5.1	5.2	5.4	5.4	5.5	5.6	5.6	5.8	5.8	5.8	5.9	6	6.2
SR	12	11.9	11.5	11.4	11.1	11	10.9	10.8	10.6	10.6	10.5	10.4	10.4	10.3	10.2	10.2	10.1	9.8	9.6	9.5
PU	2	3	3	4	4	4	5	5	5	5	6	6	6	6	7	7	7	8	9	10
SU	26	28	28	30	31	31	32	32	34	34	34	35	35	36	36	37	38	38	40	40
600 YD R	2.6	2.31	2.21	2.2	2.18	2.16	2.15	2.13	2.1	2.1	2.08	2.08	2.07	2.06	2	2	2.05	2.05	2.04	2.04
GIRLS																				
50 YD R	11	9.7	9.3	9.1	9	9	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.4	8.2	8.1	7.9	7.7	7.4	7.4
SBJ	4	4.1	4.1	4.2	4.4	4.5	4.6	4.7	4.8	4.9	5	5	5.1	5.2	5.2	5.2	5.4	5.6	5.8	6
SR	13	13	12.7	12.4	12.1	11.9	11.9	11.6	11.5	11.5	11.4	11.3	11.2	11.2	11	10.9	10.8	10.6	10.5	10.2
FAH	4	5	6	6	6	7	8	8	8	8	9	9	10	11	11	11	11	12	12	13
SU	18	22	23	24	25	26	26	26	27	28	28	29	30	30	30	31	32	33	34	40
600 YD R	3.5	3.01	3	2.82	2.6	2.52	2.5	2.46	2.42	2.4	2.4	2.38	2.38	2.34	2.31	2.3	2.3	2.3	2.28	2.28

Table4.14 Years old

PERCENTILE	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
BOYS																				
50 YD S	9	8.6	8.5	8.4	8.2	8.2	8.1	7.9	7.9	7.8	7.8	7.7	7.7	7.7	7.6	7.5	7.3	7.1	7	7
SBJ	4	5	5.1	5.1	5.1	5.2	5.4	5.5	5.7	5.8	5.9	6	6	6.1	6.1	6.2	6.4	6.5	6.7	6.9
SR	12.2	11	10.5	10.5	10.4	10.3	10.2	10.2	10.1	10.1	10	9.9	9.8	9.7	9.7	9.6	9.6	9.6	9.3	9.3
PU	0	3	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	9	9
SU	16	30	32	32	34	34	34	35	35	36	36	38	38	38	39	39	40	40	41	43
600 YD R	3.8	2.26	2.18	2.18	2.16	2.13	2.12	2.11	2.1	2.1	2.1	2.08	2.06	2.05	2.05	2.03	2	2	1.59	1.59
GIRLS																				
50 YD R	9.9	9.5	9.4	9.2	9.1	9	8.9	8.9	8.8	8.8	8.7	8.6	8.5	8.5	8.4	8.2	8.2	8.1	7.6	7.4
SBJ	3.9	4	4.1	4.2	4.5	4.6	4.8	5	5	5.1	5.1	5.1	5.1	5.4	5.5	5.6	5.8	5.8	5.8	6
SR	14.2	13.8	12.5	12.4	11.9	11.8	11.7	11.6	11.5	11.5	11.3	11.2	11.1	10.9	10.9	10.8	10.7	10.5	10.2	10
FAH	4	5	6	6	7	7	8	8	9	9	10	10	10	10	11	11	11	12	12	12
SU	21	23	24	26	26	26	28	28	28	29	30	30	30	30	31	32	32	34	35	38
600 YD R	3.11	3.02	3	2.95	2.59	2.42	2.41	2.4	2.4	2.4	2.38	2.36	2.36	2.33	2.32	2.31	2.3	2.3	2.28	2.24

Table 5.15 years old

PERCENTILE	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
BOYS																				
50 YD S	8.3	8.1	7.8	7.5	7.4	7.3	7.2	7.2	7.1	7	7	6.9	6.9	6.8	6.8	6.7	6.6	6.5	6.2	6.2
SBJ	5.1	5.5	5.7	6	6.1	6.1	6.1	6.5	6.5	6.8	6.8	7	7	7	7.1	7.1	7.2	7.2	7.6	7.8
SR	11.2	10.5	10.5	10.4	10.4	10.3	10.2	10.2	10.1	10	9.9	9.9	9.6	9.5	9.5	9.4	9.3	9.2	9.1	9.1
PU	5	5	5	6	6	6	6	7	7	7	7	7	7	8	8	8	8	9	9	9
SU	29	30	30	30	31	32	33	34	34	35	35	36	36	37	38	38	40	41	41	46
600 YD R	2.59	2.23	2.14	2.1	2.07	2.01	2	1.73	1.59	1.58	1.56	1.56	1.51	1.5	1.5	1.49	1.46	1.41	1.4	1.4
GIRLS																				
50 YD R	9.2	8.8	8.6	8.5	8.4	8.4	8.2	8.2	8.1	8	7.9	7.9	7.8	7.7	7.7	7.6	7.5	7.2	7	6
SBJ	4.2	4.8	4.9	5	5	5.1	5.1	5.1	5.2	5.2	5.3	5.4	5.5	5.6	5.6	5.7	5.8	5.8	5.8	6.2
SR	12.5	11.8	11.7	11.7	11.6	11.6	11.6	11.4	11.2	11.2	11.1	11	10.9	10.9	10.7	10.6	10.5	10.4	10.3	10.1
FAH	0	0	4	5	5	6	6	6	7	7	7	8	9	10	10	11	11	11	12	13
SU	28	28	28	29	29	29	30	30	30	30	30	31	31	32	32	33	34	34	35	38
600 YD R	3	2.41	2.4	2.4	2.4	2.37	2.36	2.35	2.35	2.34	2.34	2.32	2.31	2.3	2.29	2.28	2.28	2.26	2.25	2.25

Table 6.16 years old

PERCENTILE	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
<b>BOYS</b>																				
50 YD S	9.8	8.9	8.7	8.6	8.6	8.5	8.4	8.3	8.1	8.1	6.8	6.7	6.6	6.5	6.4	6.4	6.3	6.2	6.1	6
SBJ	5.2	5.4	5.5	5.6	5.7	5.8	5.8	5.8	5.9	6	6	6.1	6.1	6.1	6.1	6.1	6.5	6.5	6.6	6.6
SR	11.9	11.5	11.4	11.4	11.4	11.2	11.1	11	10.9	10.9	9.6	9.5	9.5	9.3	9.2	9.2	9.2	9.1	9.1	9
PU	7	7	7	7	8	8	8	8	8	8	8	9	9	9	10	10	10	10	10	11
SU	32	33	34	36	36	36	36	38	30	30	32	32	32	33	34	34	34	35	35	38
600 YD R	2.9	2.67	2.58	2.51	2.45	2.41	2.36	2.32	2.32	2.31	2.3	2.3	1.5	1.5	1.48	1.48	1.46	1.44	1.42	1.35
<b>GIRLS</b>																				
50 YD R	9.8	9	8.9	8.7	8.6	8.6	8.5	8.4	8.3	8.1	8.1	8	7.9	7.9	7.8	7.8	7.7	7.5	7.2	7.2
SBJ	4.1	4.1	5	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.4	5.5	5.6	5.7	5.8	5.8	5.8	5.9	6	6.2
SR	11.9	11.5	11.4	11.4	11.2	11.2	11.1	11	10.9	10.9	10.8	10.8	10.7	10.6	10.5	10.3	10.2	10.1	10.1	10.1
FAH	2	3	5	6	6	7	7	7	8	8	8	9	9	9	9	10	10	10	10	11
SU	26	26	27	28	28	29	30	30	30	30	32	32	32	33	34	34	34	35	36	38
600 YD R	2.9	2.67	2.58	2.51	2.4	2.41	2.36	2.32	2.32	2.31	2.3	2.3	2.29	2.29	2.26	2.25	2.25	2.24	2.05	2.03

Above all tables indicates that the final outcome of the study 11 years old,12 years old,13 years old,14 years old,15 years old,16 years old girls

and boys percentiles norms' value separately. These percentile norms' values were less than the AAHPER test percentile norms' values.

### 5. CONCLUSION

This study was assessment and reconstruct of AAHPER test in Sri Lankan youth aged 10-17(n=1000). The test battery consist with six test items give a measure of physical fitness for both girls and boys also provide keen incentive to improve fitness level of youth .According to data analysis, there is anorms' value of relevant percentiles to measure the youth physical fitness in Sri Lanka. The analysis norms' value of both girls and boys indicated a significant difference in

comparison with the AAHPER test standard norms' value. The statistically comparison of all test scores both girls and boys were actually decreases performance in 100<sup>th</sup> percentile norms' value. The reconstruction of AAHPER test in Sri Lanka represent an important innovation in the field of physical education and youth fitness it is dedicated to providing the best possible physical fitness assessment.

### 6. RECOMMENDATION

According to this research government should take process to assess the physical fitness level of youth aged 10-17 and conduct the physical fitness programmes. Ministry of

Sports and Ministry of Education should consider the reconstruct percentile norms' values and when assess the fitness level use this relevant age and relevant test items percentile norms' value.

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