

Research on Physical Activity of Primary School Students



Purpose & Research Methodology

- To figure out physical activity level & BMI distribution
- To draw the picture of physical activity perception
- To identify the opportunities & restrains of physical activity

Two phases;

1 – Tracking Physical Activity with Kenz accelerometers for «7 days»

600 children from Ankara, İstanbul & İzmir

2 – Face to face interviews
3900 children from 12 cities

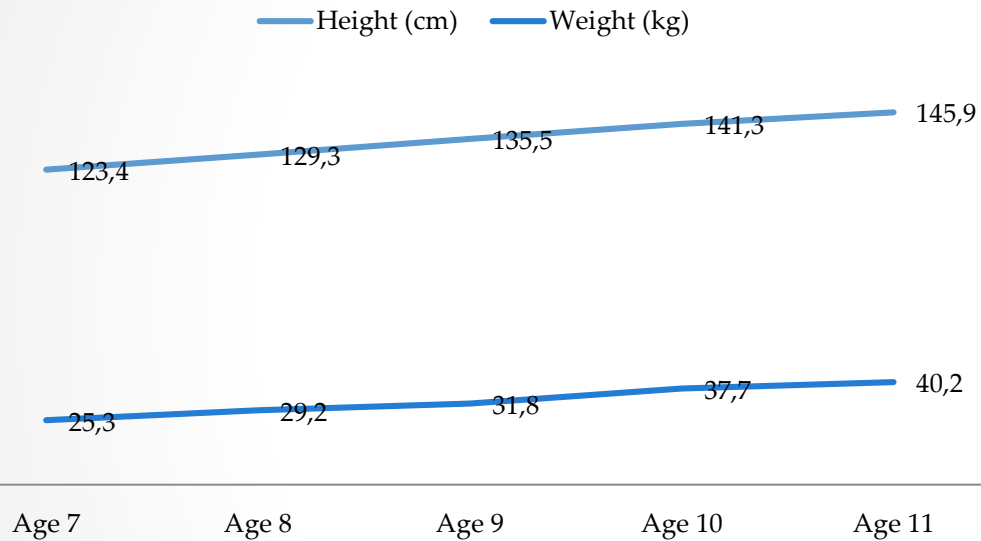
İstanbul
Ankara
İzmir
Çanakkale
Diyarbakır
Samsun
Kayseri
Antalya
Bursa
Malatya
Trabzon
Erzurum



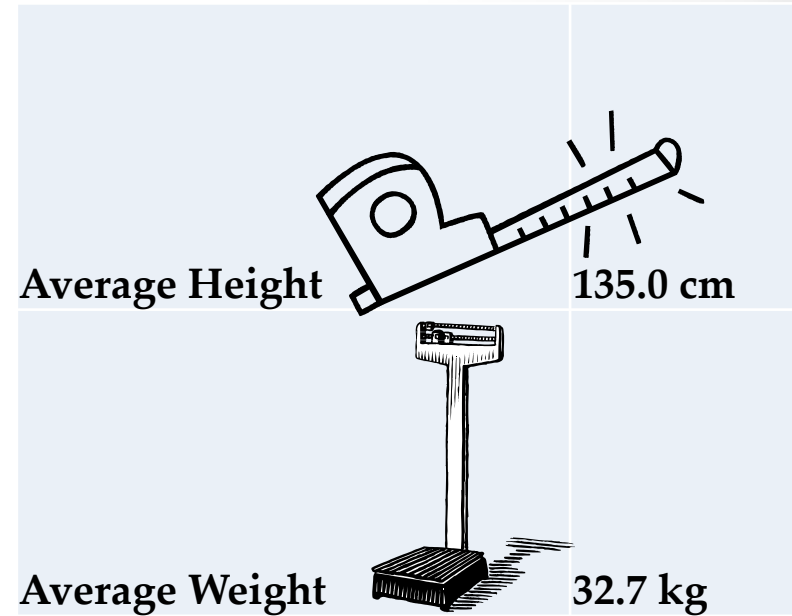
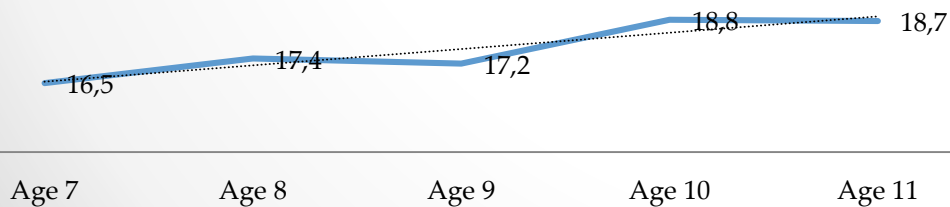
Physical Activity Measurements

Body / Mass Index

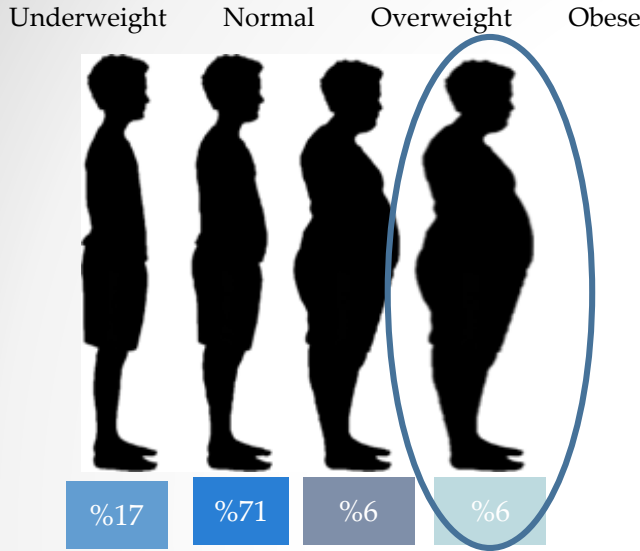
Height & Weight vs. Age



BMI



Total BMI Distribution



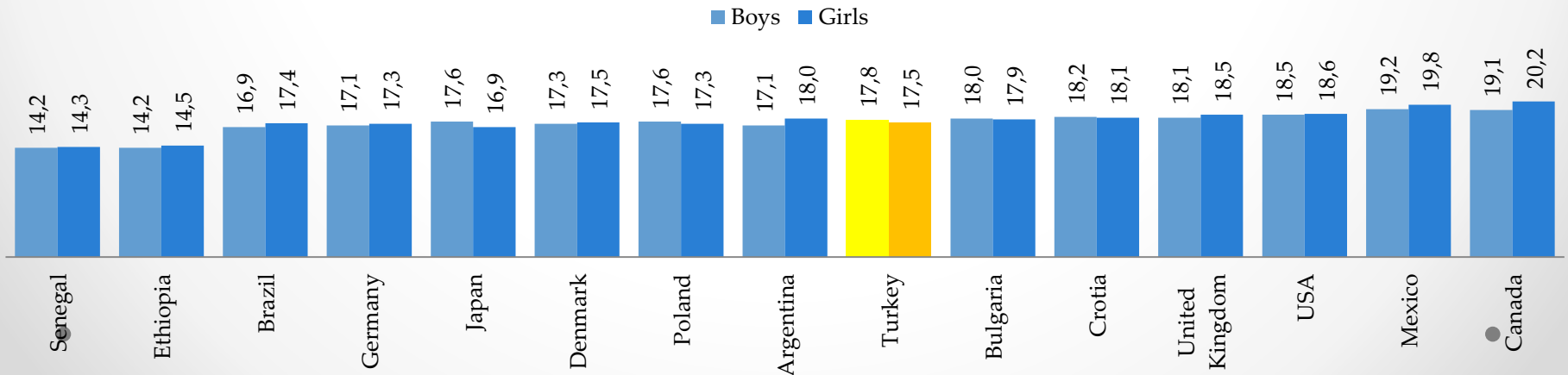
%6 of primary school students are obese

	Boys			
	Underweight	Healthy Weight	Overweight	Obese
6 <=	13,7	> 13,7 & <= 16,9	> 16,9 & <=18,6	>18,6
7 <=	13,7	> 13,7 & <= 17,1	> 17,1 & <=19,2	>19,2
8 <=	13,9	> 13,9 & <= 18	> 18 & <=20	>20
9 <=	14	> 14 & <= 18,8	> 18,8 & <=21	>21
10 <=	14,3	> 14,3 & <= 19,2	> 19,2 & <=22,1	>22,1
11 <=	14,7	> 14,7 & <= 20,2	> 20,5 & <=23,1	>23,1

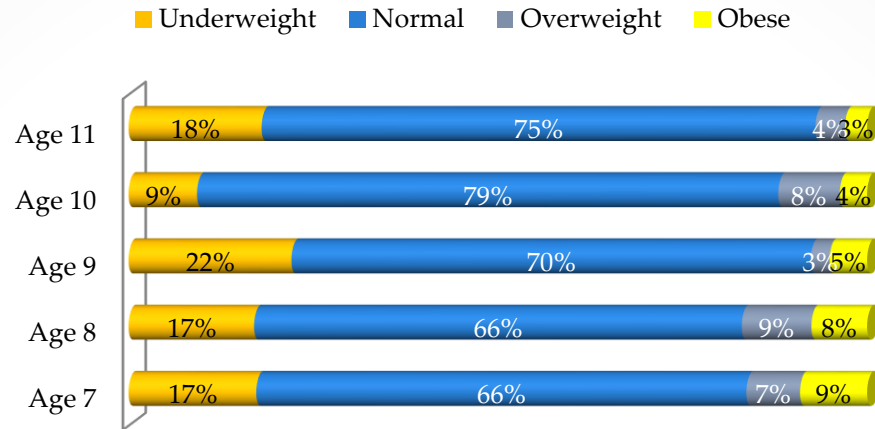
	Girls			
	Underweight	Healthy Weight	Overweight	Obese
6 <=	13,3	> 13,3 & <= 17	> 17 & <=18,9	>18,9
7 <=	13,4	> 13,4 & <= 17,5	> 17,5 & <=19,5	>19,5
8 <=	13,5	> 13,5 & <= 18,3	> 18,3 & <=20,8	>20,8
9 <=	13,8	> 13,8 & <= 19	> 19 & <=21,5	>21,5
10 <=	14	> 14 & <= 20	> 20 & <=23	>23
11 <=	14,3	> 14,3 & <= 21	> 21 & <=24	>24

CDC Growth Chart, developed by National Center for Health Statistics & National Center for Chronic Disease Prevention and Health Promotion, (2000) Retrieved from: <http://www.lose-more-weight-online.com/wp-content/uploads/2011/08/body-mass-index-children-bmi.gif>

BMI Comparison (5-14 ages)



BMI vs. Age



BMI is stable between 7 & 11 ages

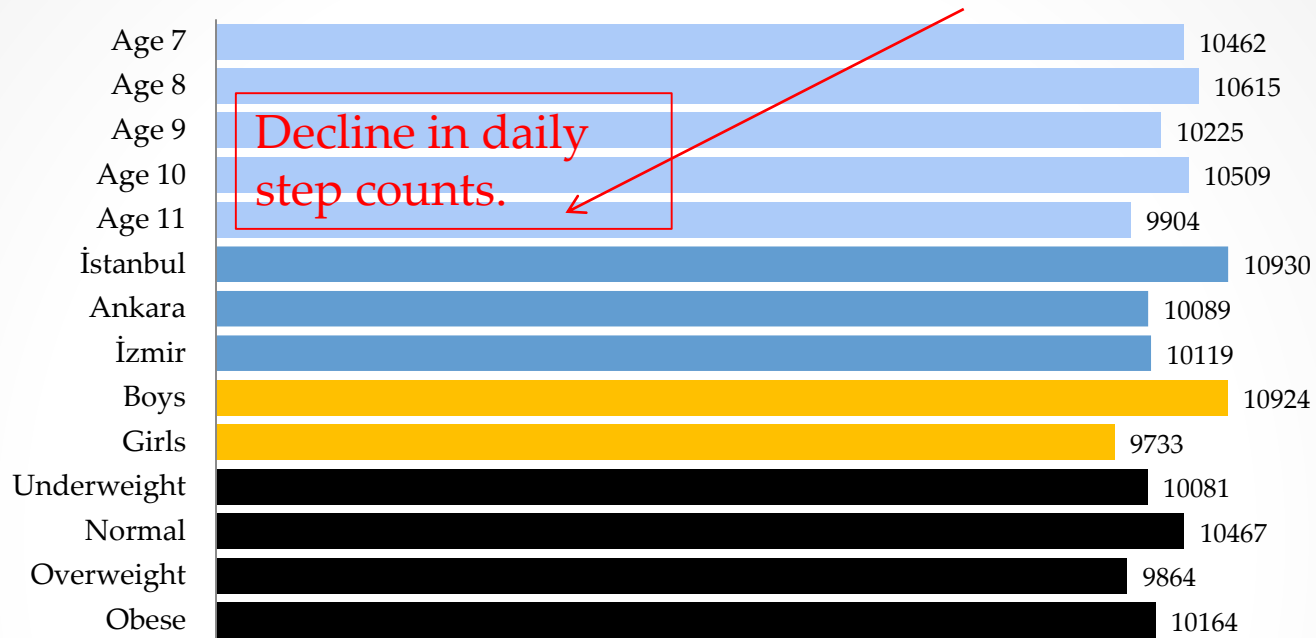
BMI vs. Categories



Not significant difference btw categories

Daily Step Measurements

Average of Daily Steps vs. Categories



Decline in daily step counts.

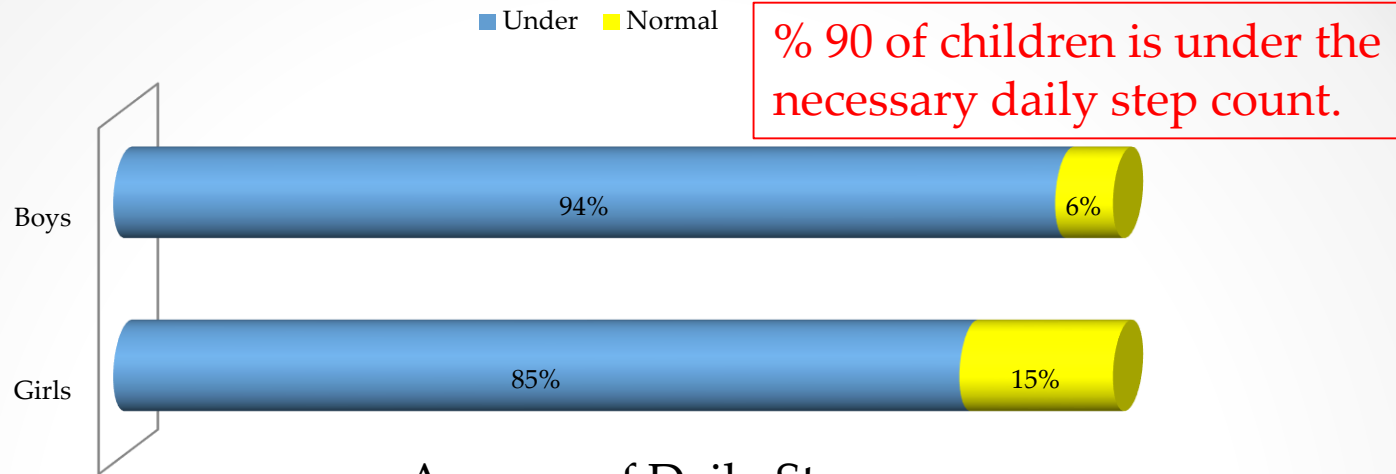
Two consistent benchmarks for daily step: Sweden & US

Turkey has lower scores than both of them

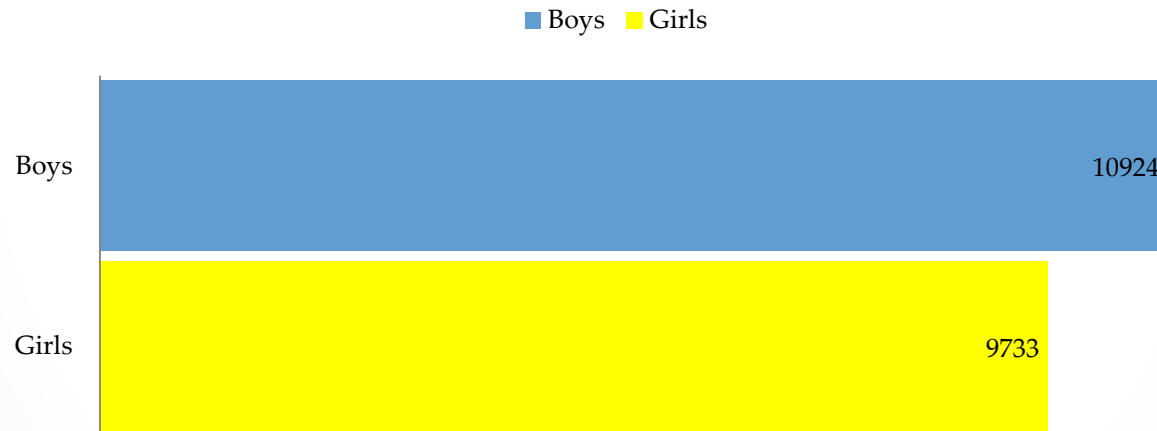
		Boys	6	7	8	9	10	11	12
North America	Canada					9000	15800		
	US	12400	13100	13500	12900	12500	12500	12000	
Europe	Czech Republic	11900	8200						
	Sweden		16500	15800	16400	18100	16750	16000	
	United Kingdom				14000	13750			
	Saudi Arabia				13200	14750		12800	
Other	New Zealand	*		*		*			

		Girls	6	7	8	9	10	11	12
North America	Canada						8900	11100	
	US	11100	11200	10900	11000	11100	11150	10600	
Europe	Czech Republic	10500							
	Sweden		14000	14250	14500	14900	13300	13000	
	United Kingdom					13100	10500		
Other	Saudi Arabia				*	*			
	New Zealand		14500			14400		13500	

Average of Daily Steps



Average of Daily Steps



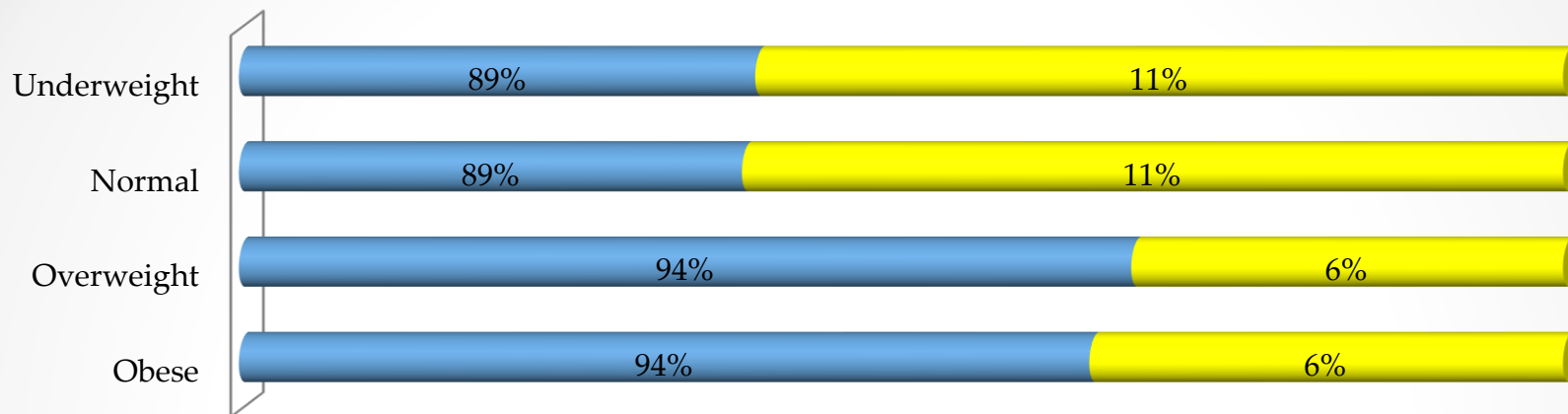
15000 steps for boys in a day*

12000 steps for girls in a day*

*Cathrine T. L. & friends (2011) How many steps/day are enough? for children and adolescents, International Journal of Behavioral Nutrition and Physical Activity , 8:78

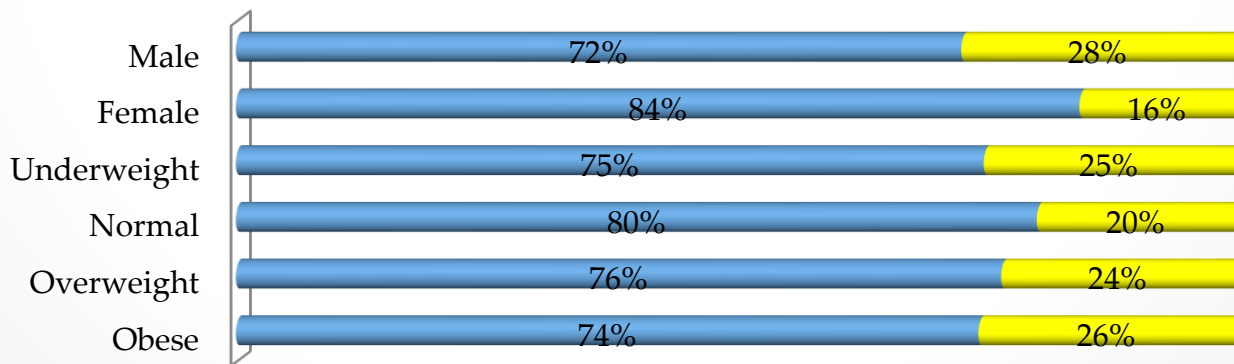
Average of Daily Steps vs. BMI Category

■ Under ■ Normal



At Least One Day a Week

■ Under ■ Normal

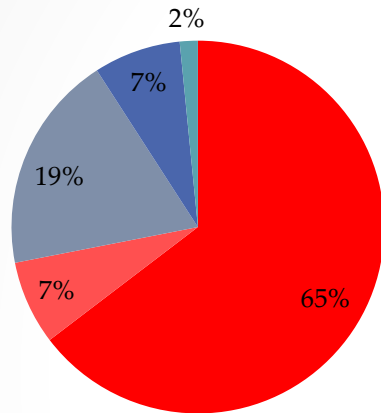


More than % 75 of children doesn't pass the necessary daily count limit at least one day.

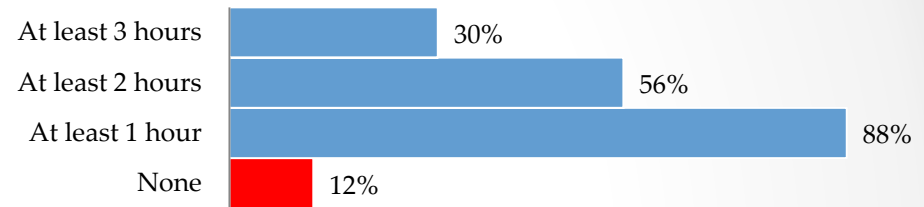
Sedentary Activities

TV Viewing Frequency

- Everyday
- 5 - 6 days in a week
- 1 - 4 days in a week
- Only weekends
- None



How much time did you watch TV yesterday?



Watching TV is a major home activity for students.
More than half of the students watch TV more than 2 hour of a day.

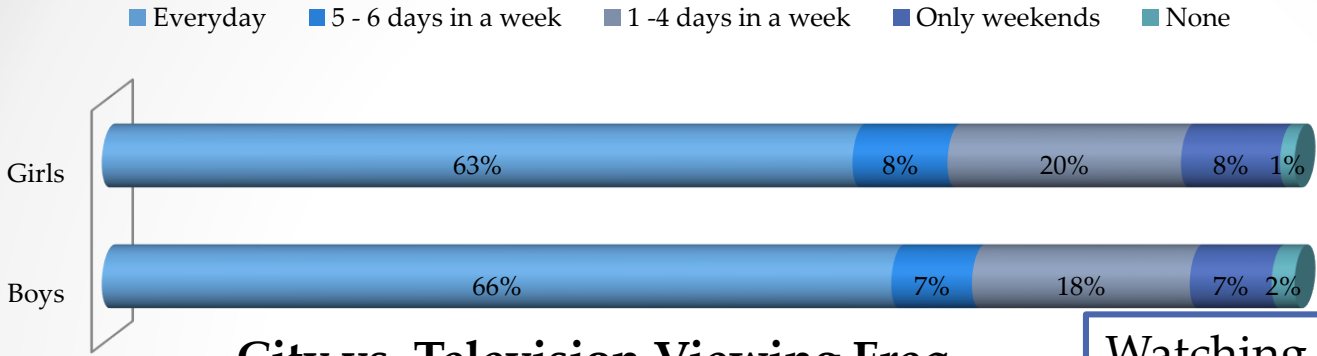
England: %44 of children watch TV more than 2 hours

For primary school students sedentary acitivities more than 2 hours damages the body compositions, negatively effects social behaviours & academic success.*

*http://www.dhs.wisconsin.gov/health/physicalactivity/sites/Community/Childcare/ActiveEarly_PAREcommendations.pdf

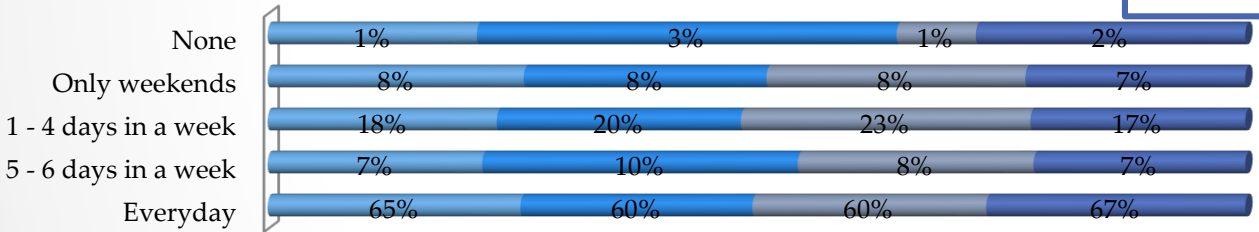
Sedentary Activities

Gender vs. TV Viewing Frequency



City vs. Television Viewing Freq.

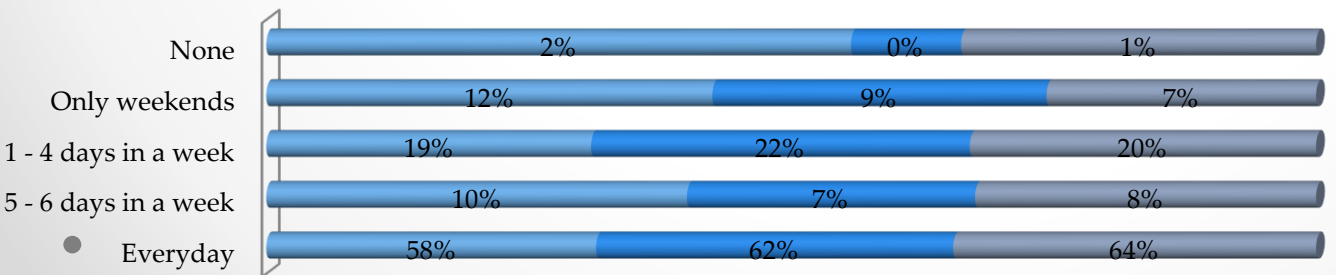
İstanbul Ankara İzmir Other



Watching TV is very common activity that doesn't effected by socio-demographical changes.

Age vs. Television Viewing Freq.

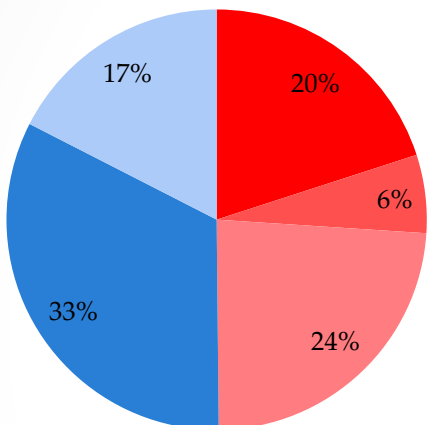
7-8 9-10 11-12



Sedentary Activities

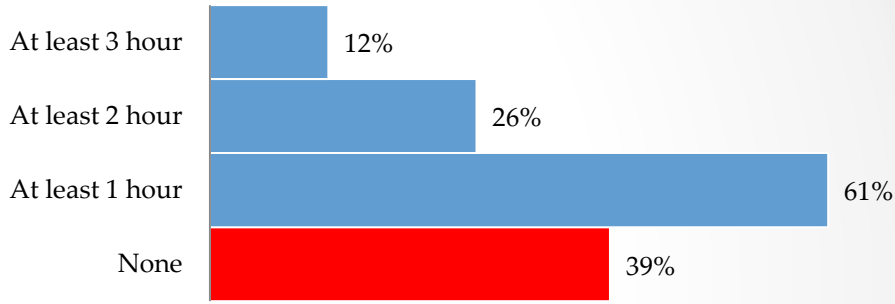
Computer Usage Frequency

■ Everyday
 ■ 5 - 6 days in a week
 ■ 1 - 4 days in a week
 ■ Only weekends
 ■ None



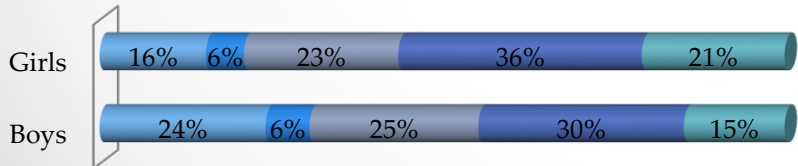
How much time did you use computer yesterday?

■ None
 ■ At least 1 hour
 ■ At least 2 hour
 ■ At least 3 hour



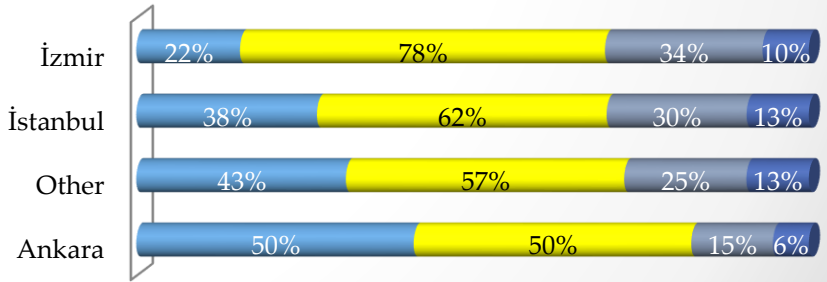
Gender vs. Computer Usage Frequency

■ Everyday
 ■ 5 - 6 days in a week
 ■ 1 - 4 days in a week
 ■ Only weekends
 ■ None



Internet Usage vs. City

■ None
 ■ At least 1 hour
 ■ At least 2 hour
 ■ At least 3 hour

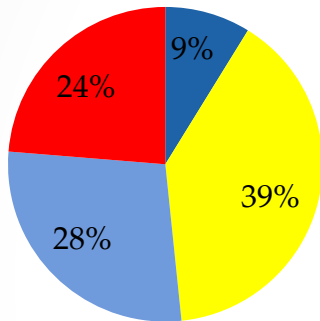


Besides TV, computer usage becoming a major leisure time activity
More than half of the students uses computer more than 1 hour of a day.

Outdoor Activities / Sport Attendance / Sport Equipment

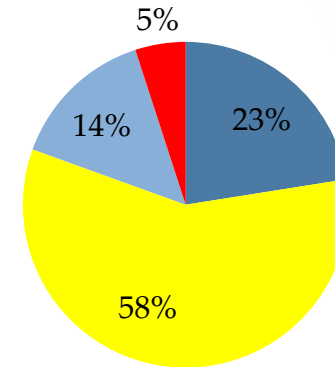
Playtime in playgrounds for weekends

■ Never ■ Between 1 & 2 hours
■ Between 3 & 4 hours ■ 5 hours or more

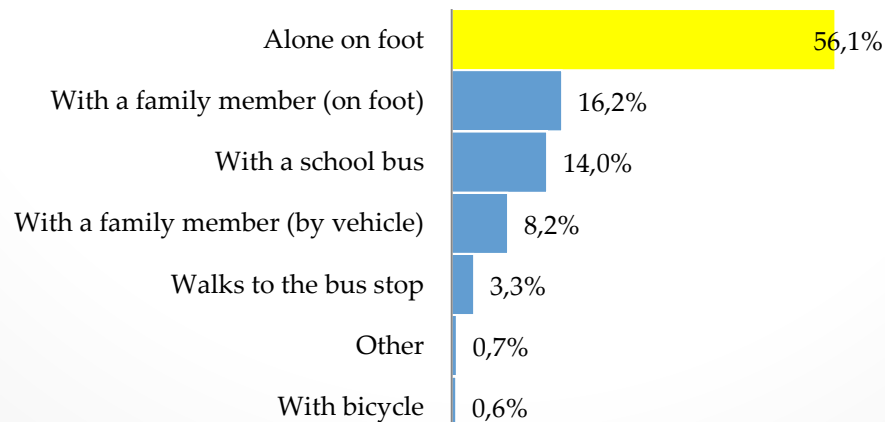


Playtime in playgrounds for schooldays

■ Never ■ Between 1 & 2 hours
■ Between 3 & 4 hours ■ 5 hours or more

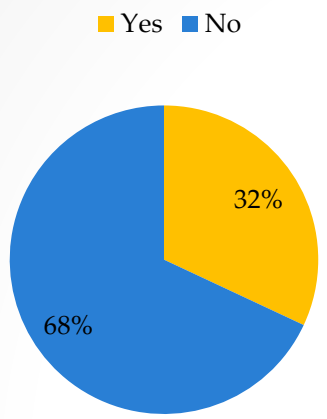


How do you go to school?



Outdoor Activities / Sport Attendance / Sport Equipment

Do you attend any sport course?

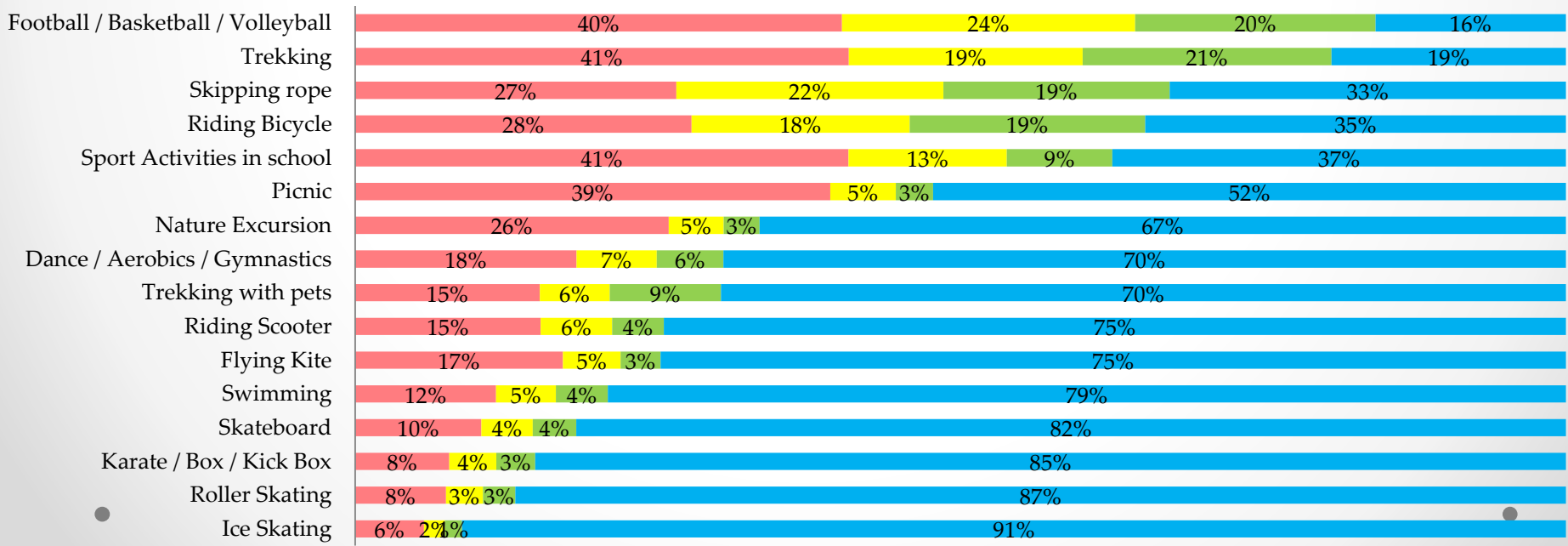


%35 Boys
%28 Girls*

31% İstanbul
34% Ankara
39% İzmir
28% Other*

Sport Activities

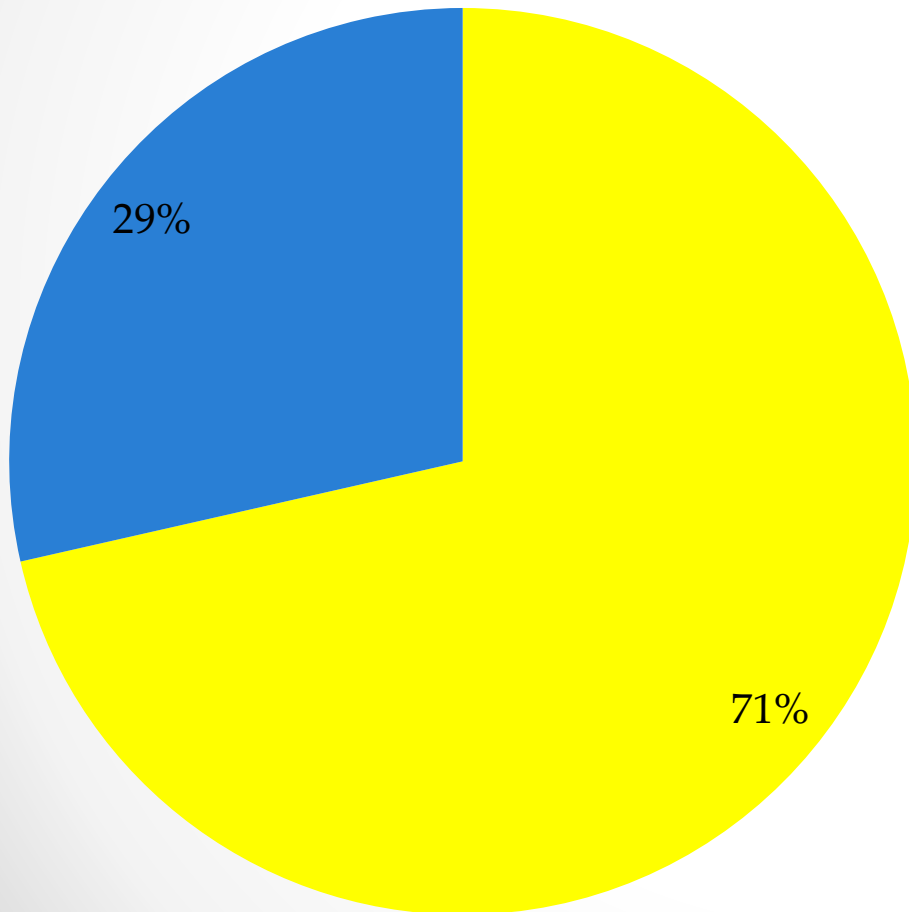
1 - 3 days 4 - 6 days Everyday of week None



Nutrition & Perception of Getting Fat

Do you pay attention not to get fat?

■ Yes ■ No



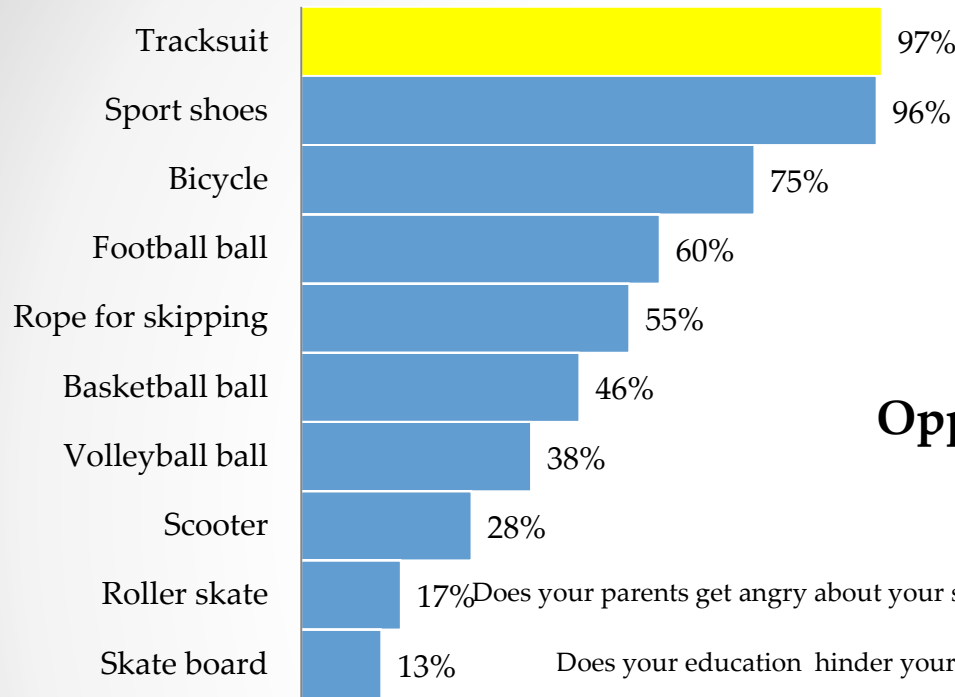
%74 of girls

% 67 of boys pays attention

The difference is significant*

Outdoor Activities / Sport Attendance / Sport Equipment

Sport Equipment Ownership



Opportunities & Restraints

■ Yes ■ No

