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## **HEALTH BEHAVIOR IN SCHOOL-AGED CHILDREN IN THE REPUBLIC OF MACEDONIA**

### **Context and importance of the problem**

**A**lthough the children of Republic of Macedonia are living in very good conditions for development and good health the percent of life satisfaction is in a significant decrease (11%) in 2002 (b.90%, g.90%) till 2014 (b.80%, g.80%).

On the age from 11 to 15 years, 3% of the boys and 5% of the girls are rating their health as poor or average, yet many of them fail to use their potential for healthy living and well being. Health related behaviors vary not only as result of the strong influence of the social, cultural and economic factors, but also due to their views on values of life (1). The findings of the analyzed study by age, gender, ethnicity, family affluence and geographic location among children of 11, 13 and 15 years of age in the Republic Macedonia shows no less varied picture of other children from different countries. Namely, with the age, the prevalence of risky behavior is growing with the children of both genders even though there is some difference between girls and boys

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and their way of making decisions and choices. Differences exist between children of the two ethnic communities, where Macedonian children are having more bad habits like smoking cigarettes, drink alcohols and use marijuana in compare with Albanian children. Adolescence is a period in which gender inequalities in terms of risky behavior and attitude towards the parents, school and peers are more evident, but lately there is a danger of increasingly risky behavior among girls, especially from wealthy families. This study has shown that girls from Macedonian nationality are using more alcohol, cigarettes and marijuana. At the age of 13 years and earlier, the prevalence of the first cigarette, young children from 11 to 15 years in Macedonia, is 12% for boys and 7% of girls (on average). With age growing number of smokers who had experienced at least one cigarette, on a daily base (1% of boys and 1% of girls at 13 years, with high proportion (b. 8%; g. 6 %) at 15 years young in Macedonia (Table 1). Compared with girls from Albanian classes, Macedonians girls smoke more often. Socioeconomic status of the families has little impact on smoking among students of 15 years of age. As in many other countries, children from Macedonia are consuming alcohol from 13 years old and younger. The prevalence is 24% (30% for boys and 17% girls) and is in the range of HBSC average (27 %) or 30% of boys and 24% of girls.

Fortunately, there is a downward trend in the early consuming alcohol at 13 years of age and less (Table 2). 15% of boys and 8% of girls in Macedonia, children aged 15 years, had been completely drunk two or more times in their lifetime. Compared to international HBSC average, that has significantly high values (17% boys, 13% girls) in Macedonia 4% of boys and 3% of girls, aged 15, enjoyed marijuana at least once (Table 3). Compared to the registered prevalence survey of 2009/2010, the prevalence of marijuana users for at least once among 15 years boys is without changes, while among girls, in 2014 is found to be increased of 1%. Macedonian HBSC average for 15 years old children has downward in both genders with 3% of boys and no girl that had experience with marijuana at their age of 13 or younger, opposed to international HBSC average of 4% for boys and 3% for girls (2).

Table 1 - Prevalence of smoking cigarettes on daily base by age and gender

<b>Gender differences</b>		Boys_MK	Girls_MK	Boys_HBSC average	Girls_HBSC average
<b>11 years</b>	2001/2002	1	0,5	0,9	0,4
	2005/2006	0	0	1	0
	2009/2010	2	1	1	0
	2014	1	0	1	0
<b>13 years</b>	2001/2002	1,6	0,7	5,2	4,4
	2005/2006	1	0	3	3
	2009/2010	1	1	3	3
	2014	1	1	2	2
<b>15 years</b>	2001/2002	11,2	8,6	18,1	16,9
	2005/2006	10	9	14	14
	2009/2010	9	7	14	12
	2014	8	6	8	7

Table 2 - Prevalence of early age drinking in rates by gender

<b>Gender differences / cycles</b>	<b>2005/2006</b>	<b>2009/2010</b>	<b>2014</b>
Boys – MK	11	10	6
Girls – MK	3	3	2
Boys– HBSC average	17	16	10
Girls – HBSC average	13	12	7

Table 3 – Enjoying marijuana at least once in lifetime by gender

<b>Gender differences / cycles</b>	<b>2001/2002</b>	<b>2005/2006</b>	<b>2009/2010</b>	<b>2014</b>
Boys – MK	3,8	4	4	4
Girls – MK	2,5	3	2	3
Boys – HBSC average	25,8	21	20	17
Girls – HBSC average	18,9	16	15	13

In the past 12 months in Macedonia, 29% of boys and 16% of girls of school age between 11 and 15 years had suffered an injury which required a medical care, 11% of boys and 3% of girls had participate in a fight 3 or more times and 8% of boys and 2% of girls carried weapons such as a gun,

knife or stick to the school at least once in the last 30 days. The report study is showing that boys are having sex more often than girls. On the other hand boys from more wealthy families are using protection more than boys from less wealthy families. Gender differences in condom use occur only among young children of the Albanian ethnic community, where girls are using only 20% of cases and in compare with other European countries, Macedonia is on the lower level on the ranking list.

The economic status of the families is not a factor in the use of condoms. Among 15-year-old sexually active youth aged 11 to 15 years, 4% of boys and 3% of girls has reported the problem of going to school due to chronic illness, disability or other health problem, with the highest proportion of 6% among 11-year-old boys from Albania classes. In Macedonia, 10% of boys and 14% of girls, schoolchildren aged 11 to 15 years are using drugs / pills for headache, more than once per month, with the highest proportion among 15 years old girls in Macedonian classes (24%).

Because of the dissatisfaction with their appearance and body in terms of health habits, older children are eating less fruit and vegetables and girls are more on diets (10% boys, 13% girls) (3). From 2006 to 2014 there is an increasing trend in the prevalence of obese children, 30% of boys and 17% of girls have elevated body. The physical activity is on a low level and the percent is going down (32% of boys and 22% of girls have 60 minutes daily physical activity). The prevalence level is increasing regarding children that spend time sitting at home in front of the computer, away from their peer and this is especially evident among Albanian girls classes. In Macedonia, 45% of boys and 42% of girls schoolchildren, 11 to 15 years, have daily contact with friends using electronic media. Similar to countries in the region on international level, Macedonia is ranked with a high rate of young people who communicate through electronic media every day. With the growing age, children more and more are talking and communicating with their parents whereby Macedonian classes' boys are more related with their mothers and the girls with the fathers.

Although children of Albanian classes like school more than children of Macedonian classes, the general prevalence of children who feel burdened by schoolwork and commitments is growing, leading to conditions of lower satisfaction with the school in proportion to the age of the children. 48% of boys and 56% of girls in Macedonia aged 11 to 15 years said that they love the school. With age and with decreasing family affluence, life satisfaction, the feeling of good health, and other indicators of mental health tended to decline. The mental health is tending to decline as result of decreasing the family affluence and the life satisfaction for better health.

## Interpretation of the results

Health related behavior among school children in Republic of Macedonia vary as a result of the influence from the social, cultural, economic factors but also due their views on life and life values. In Macedonia for the fifth time in 2014/2015 was implemented the international study “Health Behavior in School Age Children” (HBSC) of 4.218 pupils from 140 schools both Macedonian and Albanian classes in order to see the trend of the movement of certain forms of behavior towards health in children of 11, 13 and 15 years of age. The findings were analyzed according age, gender, ethnicity, family wealthy and geographical position presenting the conditions and trends in the period of 2001/2002 - 2014/2015 and compared with other 44 countries also participating in the study.

Unfortunately, the results from the studies has shown that even with the improved health conditions the majority of the children still have risky behaviors which is increasing even more between their transition from 13 to 15 years. Compared with the past, these days researches are showing more frequent risk behavior related with the smoking, alcohol consummation and enjoying marihuana among girls from Macedonian classes who are coming from more wealthy families with exception regarding the cigarette smoking on and under 13 years old where is register lower prevalence among both genders. Children coming from more wealthy families, especially girls from Macedonian classes are showing early and more frequent sexual relationships while using prevention.

Regarding injures, they vary according the age of the children, except among the Albanian children where more often the percent of injuries is going down with the child growing process. In a healthy habits view is shown that adult children more rarely are taking healthy food with less fruits and vegetables and are less physically active. The dissatisfaction among the girls grows because of the appearance concerning their obesity which leads to diets. Their displeasure is more and more common with their health and life and often has need of taking pills for headaches and anxiety.

Unlike girls, boys much more go out at night and socialize. On the other hand because of the burden with school assignments and responsibilities, children are getting less interested in school and this is shown with bigger prevalence at Macedonian classes. It’s worrying the fact that the distance of the parent relations with the children is growing still the mother connection is bigger. Although Republic of Macedonia if following the general trends compared with other countries, the children still have the lowest level on the international tables for risky behavior. The environmental and

socio-economic status of the family is also a big influence of the children behavior regarding their health, self-assessment and dissatisfaction. These conditions imply the need of taking systematic measures and access in creating the necessary programs to promote the health of the adolescents with specific sensitive measures and activities according the needs and rights of the children where they will have much more active roles then before.

### **Assessment of existing policies of children health in the Republic of Macedonia and possible options to addressing new challenges**

The health condition and child behavior regarding the health is not straining only the educational and health system, but also creates serious economic impacts individually, on the families and on the social community. The policy makers need scientifically based, objective assessments of the dangers of risky adolescent children behavior to be able to inform and mobilize resources for timely undertaking preventive measures at local, national and international levels. Every day we are facing with new children's health treats because of the changes occurring in the cultural, economic and social life of the country and the region. The society is facing with widespread challenges on the health care of the entire populations having in one hand the permanent changes in eating habits - fast food consumption outside the home and environmental changes followed by the emergence of new, dangerous effects of the business sector in terms of increased supply of tobacco, alcohol, marijuana and other psychoactive substances and the insufficient number and type of facilities that assist in creating healthy lifestyles and behaviors on the other hand. National risky behavior can become widespread, with global consequences and longer duration if the number of affected persons and vulnerable groups is increased. Scientific researchers are facing with challenges in view of identification and assessment of newly discovered risks manners.

Republic of Macedonia has three main adolescent health policy objectives:

1. Improving the health of the children;
2. Protection of risky conduct affecting adolescents;
3. An integrated and systematic gender-sensitive approach in creating policies that address specific needs and rights of children (4).

The institutional structure and allocation of responsibilities still holds this complex activity disintegrated because of the insufficient involvement and coordination of various institutions from different sectors: the Ministry of Education, Bureau for Educational development, Ministry of Health, Public Health Institute, universities, NGOs, the media and so on.

The significant differences in health conduct of the children based on age, gender, ethnicity and social status in the Republic of Macedonia indicate that it is necessary to increase coordination among the various entities involved in the education process of school aged children. To achieve a high level of proper behavior of children towards their own health should establish strong links between public health, the health sector and other sectors, particularly the sector of education and science. Achieving a high level of proper children behavior towards their own health, it should be established a strong links between public health, the health sector and other sectors, particularly the sector of education and science. Nevertheless the public health sector should take the key role in building a community of diverse partners and stakeholders who share similar goals and responsibilities and in this partnership should be include science and research work.

## Recommendations for new policies and implementation

European policy framework “Health 2020” has the focus on effective integrated strategies and interventions in response to major health challenges in the region and supports the continuing efforts in the struggle for health for all and everyone. Moreover, particular emphasis is placed on building capacity for exchanging information and joint activities with aim to promote the health of vulnerable groups:

- **Scientific decision-making for measures and actions** should be based on transparent, objective and independent assessments of un (healthy) risky behavior of school age children.
- **Creating specific gender and health development policies and programs** that respect the context of life with all its features and impacts on health of the children: cultural, social, economic and others.
- Preparation and adoption of a single document - **Program to promote healthy conduct and habits of different groups of children** with more active participation, rather than focusing only on the usual negative behavior of children and by imposing adult made. This type of program document still haven't been prepared and adopted in the Republic of Macedonia.
- **Intersectoral collaboration and information exchange strength-**

ening through establishment of a national body - **Committee for promotion of health adolescent in the Ministry of Health** whose main feature will be the preparation of the **annual program to promote healthy behaviors and habits of different groups of children**, and it will be composed of governmental, non-governmental representatives, and international institutions who coordinatle will implement and evaluate the plan and results through Report of measurable indicators for adolescent health.

- **Straightening the public health capacities** in view of human and material resources in the health sector, especially in institutions of public health (Institute of Public Health and 10 centers for public health, which is comprised of consulting on sexual and reproductive health and smoking cessation).
- **Improving the system for monitoring adolescent health, trough development indicators set** by the Committee for the promotion of adolescent health with a software solution that networks the institutions who will be placing the necessary data.



## **Executive Summary**

Health related behavior among school children in Republic of Macedonia vary as a result of the influence from the social, cultural, economic factors but also due their views on life and life values. In Macedonia for the fifth time in 2014/2015 was implemented the international study “Health Behavior in School Age Children” (HBSC) of 4.218 pupils from 140 schools both Macedonian and Albanian classes in order to see the trend of the movement of certain forms of behavior towards health in children of 11, 13 and 15 years of age. The findings were analyzed according age, gender, ethnicity, family wealthy and geographical position presenting the conditions and trends in the period of 2001/2002 - 2014/2015 and compared with other 44 countries also participating in the study.

In conclusion, the environmental and socio-economic status of the family is also a big influence of the children behavior regarding their health, self-assessment and dissatisfaction. These conditions imply the need of taking systematic measures and access in creating the necessary programs to promote the health of the adolescents with specific sensitive measures and activities according the needs and rights of the children where they will have much more active roles then before.

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