INTRODUCTION
The differences between the health indicators from Western countries and Romania are assigned in a proportion of 30% to the economical downshift and to the socio-economical factors, 50% to the risk factors of the life style, 10% to the environment pollution and 10% to the deficiencies of the medical services.(5) As such, the greatest contribution to the improvement of the health condition falls on the promotion of medical services.(5) As such, the greatest contribution to the improvement of the health condition falls on the promotion of educational programs for combating tobacco use by students, which are financed by WHO and EU.

These aspects have encouraged the conduct of a study for the cognition of the frequency of some unhealthy behaviour in teenagers in the municipality of Botoşani, in parallel with the research of their motivation, recognized by the students.

On a global questionnaire, 22% of the teenagers smoke, among whom 16% smoke every day (1).

In Romania, the monitoring of the risk behaviours to the health started by means of a great action at a national level under the coordination of the Public Health District Authority Cluj; the study has indicated for the area of Moldova a smoking riskiest behaviors (alcohol, drugs and nutrition risky behaviour), can lead to addiction and one must underline the great importance of the social environment, that gives the patterns of a normal behavior, but also the motivations for the adoption of some behaviours, which most of times, are harmful – immediately, but especially in time - to the health and social adaptation.(6,8,9).

The differences between the health indicators from Western countries and Romania are assigned in a proportion of 30% to the economical downshift and to the socio-economical factors, 50% to the risk factors of the life style, 10% to the environment pollution and 10% to the deficiencies of the medical services.(5) As such, the greatest contribution to the improvement of the health condition falls on the promotion of medical services.(5) As such, the greatest contribution to the improvement of the health condition falls on the promotion of educational programs for combating tobacco use by students, which are financed by WHO and EU.
frequency of 30.99% in regard to the situation of Romania of 31.7% (6); the educational programs organized in school can
determine mutations in the teenagers’ opinion and help them
resist the group pressure by recognizing the risky situations. (1)

In 2004, under the aegis WHO the program „An
Europe without tobacco” was conducted in Romania, in which
the county of Botoșani was included with a total sample of 454
students of different ages and collectivities (2). The results of
this study at a national level were the basis of signing by
Romania of the Frame agreement for fighting against smoking
and further one has considered appropriate the annual
monitoring of the same behaviour in the same territories, within
the objectives of the National Health Plan of the Ministry of
Health in relation with the Environment Ministry; many studies
in different counties of the country indicate frequencies,
distributions and different tendencies of the risky behaviours in
teenagers (7,8,4).

In 2010, a cognition activity of some health aspects in
teenagers from the municipality of Botosani has included also
the monitoring of risky behaviours on 6 behavioral areas:
alcohol, tobacco, marijuana use, other drugs, violence, sexual
behavior; the results regarding the use of tobacco products at
teenagers complete the information obtained by the research from
2004 with data regarding the frequency in evolution of the
phenomena and details on ages, sexes, highschool departments.

THE AIM OF THE STUDY
The purpose of this paper is to indentify the frequency
and the evolution of this behaviour, for different groups of
teenagers in the county of Botosani.

MATERIAL AND METHODS
The two studies have been conducted according to some
methodological approaches appropriate to the objectives.

The study from 2004 was conducted according to the
methodology elaborated by the Public Health District Authority
Cluj in the following stages:

- The assignation of school collectivities and of the study
  sample;
- The application of the WHO-GYTS questionnaire in those
  localities, to the number of students and the specified age
  segment;
- The conduct of intensive educational programs of this
  sample regarding the smoking risks;
- Re-testings of the same segments, with the same
  questionnaire.

Based on these stages the following objectives are
reached:(5)

a) The assessment of smoking prevalence;
b) The assessment of the educational impact on health in
fighting smoking among students.

From these researches at the county’s level, this papers
refers to the results in a teenagers’ collectivity in town Dorohoi
in the first stage (2) - of knowledge by a smoking frequency and
intensity questionnaire and also of the knowledge level of
students with regard to health risks.

For the complex study of the risky behaviours
frequency in teenagers from the municipality of Botosani,
conducted in 2010, the study methodology consists in the
following stages:

a) Establishing the collectivities and the study samples

From the 13 highschools with a number of 8569
students, we have selected a couple of highschools based on the
following criteria, for the conduct of the study:

- big number of students, with parallel classes for the same
  study year;
- with school performances (at olympics or admission exams
  for high education)
- with different study field.

Therefore, I have chosen the following highschool in the
municipality:

- Mihail Eminescu High school, with theoretical track,
basically mathematics-informatics, but also with social-
human track, with a number of 886 students, with school
performances of most of the students;
- Arts highschool Ştefan Luchian, vocational school, with a
severe admission selection, with a number of 223 students;
- Administrative highschool – specialized highschool
requested by students, offering a certain safety regarding the
future qualification and job, with a number of 645
students;
- School complex of light industry, highschool with practical
track, but also with classes with theoretical track with a
structure dominated by the feminine gender, low results as
school performances, with a number of 863 students.

A calculated sample, having a basic collectivity the
15-19 years county’s population, has established a volume of the
group of study of 377 highschool students, without set criteria
for the inclusion or exclusion from the group.

b) the elaboration of the work instrument

Having as a goal the knowledge of the risky
behaviours frequency, their evolution in time, their motivation,
as a support of the recommendations for their prevention and
elimination, the research was conducted based on a
questionnaire and the results were registered taking into account
the information limits of each questionnaire.

The processing of the results was performed with
biostatistical indicators which have indicated the frequency, the
distribution on ages, sexes, educational tracks, correlations
between different risky behaviors and the statistical significance
of frequencies’ differences.

The special character of the questions, the appeal to
memories, but also to intimacy aspects has imposed the stringent
conformity with the professional ethics. The students have been
thoroughly informed that they are included in a populational
study, that the results depend on sincerity and the efficiency of
some preventing measures, that the answers are anonymous and
confidential, that the nonresponse is not incriminated, but it is
better to avoid such situations and that as a last resort they can
refuse the inclusion in the study group without any repercussion.

RESULTS AND DISCUSSIONS
The results and determinations are presented for the
two separate study stages.

In the study from 2004 (2), the coordination center of
WHO, has selected the National Highschool „Grigore Ghica
Voievod” of Dorohoi the 9th grade classes were the subject of
the study. For these classes the group of study with 58 students
was formed, ages between 15-17 years and with a greater
number of girls (Table 1). The M/F report was 1/1,3, the average
age of the group was of 16,26 ± 0,58 years and the age
differences are not significant from a statistical point of view
(test Student -0,067).

Table no 1. The group researched at the National
Highschool „Grigore Ghica Voievod” of Dorohoi

<table>
<thead>
<tr>
<th>Age</th>
<th>Masculine</th>
<th>Feminine</th>
<th>M + F</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 years</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16 years</td>
<td>15</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>17 years</td>
<td>9</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>33</td>
<td>58</td>
</tr>
<tr>
<td>Average</td>
<td>16,32 ± 0,56</td>
<td>16,21 ± 0,60</td>
<td>16,26 ± 0,58</td>
</tr>
</tbody>
</table>

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The small number of subjects didn’t allow proscentual processing in order to present data as absolute numbers. A. The number of students who tried/experimented smoking represents almost half of the group (26 from 58), being greater in boys (16 of 25) against girls (10 of 33) (Pic. 1); according to the age, the number of students, who have tried at least one time to smoke, grows at 16 years for boys and at 17 years for girls. For the entire group, the greatest frequency of the persons who tried smoking, is at 17 years (more than 6/10 of students).

B. The age at which they tried the first cigarette is variable, even 7 years old for boys; most of them (boys and girls) try their first cigarette between 14 - 15 years old (Table II).

Table no. 2. The distribution of students according to the age at which they’ve tried smoking, on sexes (c. a.)

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Masculine</th>
<th>Feminine</th>
<th>M + F</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>8 – 9</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>10 – 11</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>12 – 13</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>14 – 15</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>16 +</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>10</td>
<td>26</td>
</tr>
</tbody>
</table>

C. The testing and the adoption of this behavior are favored also by the easiness with which the students - minors- can get their cigarettes; so, from 50 students who answered the question, only two of them admit that they were refused at the store because of their age; eleven consider that it is hard for them to get cigarettes from stores, but most of them have no difficulties in this respect.

D. The questions from the questionnaire regarding to the knowledge and attitude of teenagers with regards to smoking, have indicated that from the 58 students, 47 have discussed within their families about the toxic effects of smoking. The majority (43 students) consider that smoking is harmful for the health, even as passive smoking. Generally, students consider that organized interventions are necessary in order to prevent or fight against smoking in students and those have to be especially restrictive, interdicting the commercials, sales or smoking in public spaces.

The educational actions and the information from students are different, considered insufficient - by most of them; to these a greater number is added (11 - 30 teenagers) who think that the information transmitted by media is not received by them as proper message, which they have to follow. With regards to the intervention/the contribution of the school in transmitting the messages regarding the smoking risks, the students consider that these information, which they have received in an organized way, can have a positive impact at school upon students, having an influence on the decision in rejecting smoking, but like the other aspects in school, can be an extra motivation for testing or even for starting smoking (the fact that he/she sees teachers or students smoking, especially in school).

The study conducted in 2010 comprised 377 students distributed relatively in the 4 selected highschools (Table III)

Table no. 3. Number of students researched on highschools and their precentage % from the total number of students

<table>
<thead>
<tr>
<th>Highschool</th>
<th>Total number of students</th>
<th>Total number of students in the study</th>
<th>% from the total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highschool Mihai Eminescu</td>
<td>886</td>
<td>101</td>
<td>11.40</td>
</tr>
<tr>
<td>Arts highschool</td>
<td>223</td>
<td>84</td>
<td>34.67</td>
</tr>
<tr>
<td>School complex of light industry</td>
<td>863</td>
<td>100</td>
<td>11.59</td>
</tr>
<tr>
<td>Administrative highschool</td>
<td>645</td>
<td>92</td>
<td>14.26</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2617</td>
<td>377</td>
<td>14.40</td>
</tr>
</tbody>
</table>

The structure of the group indicates the following:

- the distribution on sexes is common, with a greater percentage for the girls: 248 girls (68.8%) and 129 boys (34.2%); the report F/M was of 1.92/1 ;
- as medium of residence – all the students come from urban areas;
- from the perspective of an instructional level, the group is uniform, easily dominated by the 12th grade students (28 % of the total) followed by the 9th grade (26%); in the 10th and 11th grades are almost 23 % of the students from the entire group;
- the distribution on age groups indicated the average age of students investigated during the study of 16.98 ± 1.03 years, varying between15 and 18 years; the predominant age is 18 years (42.7%) .

The 11 questions of the questionnaire regarding tobacco products use, indicates synthetically the following aspects:

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• From the investigated students 57.8% have tried smoking, statistically significant for boys (OR=1.95; IC95%: 1.22±3.12)\( \chi^2=8.05; GL=1; \quad p=0.008 \), but without significant differences:
  - on age groups 46.9% teenagers of 15 years old; 63.1% teenagers of 16 years; 50.6% of 17 years and 60.2% of 18 years teenagers \( \chi^2=4.86; GL=3; \quad p=0.182 \);
  - on highschool tracks \( \chi^2=5.55; GL=3; \quad p=0.013 \) (fig. 2).

With regards to the age they have smoked an entire cigarette for the first time 55.7% of the students have answered never, but there is a 2.9% among teenagers, who answered that they have smoked for the first time at the age of 8 or less. Most of the students have smoked for the first time at 15-16 years (16.4%) and 13-14 years (12.7%) (fig. 3).

**Figure no. 2. Answers frequency to the question if they have tried smoking based on sex, age and school**

![Image 2](image2.png)

The answers regarding smoking frequency in the past month have indicated a percentage of 8% of the teenagers, who smoked in all 30 days(Fig. 4).

**Figure no. 3. Distribution of the students from the researched group regarding the answer to the question „at what age did you smoke for the first time an entire cigarette”**

![Image 3](image3.png)

**Figure no. 4. Distribution of the students from the researched group regarding the answer to the question „in the past 30 days, how many cigarettes did you smoke?”**

![Image 4](image4.png)

The frequency was significantly greater for boys (OR=2.86; IC95%: 1.72±4.74); 38.8% of the boys and 18.1% of the girls \( \chi^2=18.05; GL=1; \quad p=0.00002 \), but the distribution on ages \( \chi^2=5.86; GL=3; \quad p=0.119 \) was not statistically significant.

With regards to the smoking intensity (number of cigarettes smoked per day) it is indicated that in the past 30 days 74.5% of the questioned ones didn’t smoke, 0.8% have smoked more than 20 cigarettes per day; most of them(10.9%) have smoked in the past 30 days 2-5 cigarettes per day(Fig. 5).

In relation with the way of getting the cigarettes, it is indicated that the majority of the ones who smoke get their cigarettes without difficulties from the store (18.9%).

To the question „in the past 12 months, have you tried quit smoking” 33.9% of the total of students who smoked even 1-2 puffs, have tried to quit smoking in the past 12 months, without statistically significant differences on sexes and age groups but coming frequently from the Light Industry Highschool\( \chi^2=11.09; GL=3; \quad p=0.011 \).

**Figure no. 5. Distribution of the children from the investigated lote in accordance with the answer to the question: „In the last 30 days, how many cigarettes have you been smoking a day?”**

![Image 5](image5.png)

With different frequencies, very important, it is determined that even chewing, sniffing tobacco or tobacco smoking are not something new for the researched students.

**CONCLUSIONS**

The results of the study conducted in 2004 within an action of WHO at a national level for 58 teenagers in the 9th - 10th grades in town Dorohoi, county of Botosani indicates a greater frequency of smoking(at almost \( \frac{1}{2} \) of the students), with a critical age of 16 years.

The study certifies again, on another group, in another moment, the determinations of other researchers regarding „feminization” and „rejuvenation” of this risky behaviour.

The recent study on a group of 377 teenagers from 4 highschools selected on set criteria from the municipality of Botosani has indicated that the occasional smoking(68%) or already settled(8% of the students), is more frequent to boys, after the age of 13 years, practiced even in school, favorized by the easiness with which they get their cigarettes to which sometimes the testing another use methods adds: sniffing, chewing, ciggar; these results impose the recognition of the educational function of the school, because „the school doesn’t teach if it doesn’t educate” and the education for health must be based on the interaction student - teacher and on the complementarity between parents and the educational unit.

**BIBLIOGRAPHY**

