Objective. To know the consumption of alcohol in Toledo schoolchildren, to find out the reasons which cause them to drink and the alternatives proposed.

Design. Descriptive, transverse study.

Location. 2 zones in the Toledo health area.

Participants. A total of 625 adolescents between 13 and 18 years, in the third and fourth years of Obligatory Secondary Education and first year in High School (Bachillerato) of 2 secondary education institutions in Torrijos and 1 in Toledo capital.

Main measurements. Using an ad hoc designed anonymous questionnaire, with 32 items, the following data was collected; age, sex, alcohol consumption (personal, family, and friends), how much (standard drink units), knowledge and sources of information on alcohol, taking of other drugs, reasons for consuming, and the alternatives.

Results. 47.27% of those questioned were male. The mean age was 15.4±1.3 years. 93.4% had tried alcohol (95% CI, 91.1-95.2). 52.0% had been drunk at some time, which was more frequent in rural areas than in the city. 58.1% considered alcohol as a drug. Among the reasons mentioned for drinking, the main ones were “enjoyment” (46.3%), “to forget problems” (30.7%), and “curiosity” (24.6%). The alternatives to drinking which were proposed were related to computers and sport.

Conclusions. The consumption of alcohol is a common habit among adolescents and its pattern differs between urban and rural areas, where it is much earlier and more intense in the latter. It forms part of their lifestyle, they use it as a means of enjoyment and a large percentage consider that alcohol is a drug. Against “street binge drinking,” their proposals are computer activities and sport.

Key words: Alcohol. Adolescence. Drugs.
**Introduction**

Excessive alcohol consumption causes inevitable diseases and premature death, it is associated with more than 40%-50% of traffic accidents, a principal cause of death among young people and adolescents, it increases family conflict, delinquency, and socio-health costs, and decreases performance at school. Alcohol is a drug, cheap, legal, permitted, accessible and accepted by society. Several studies detect a first contact at continually lower ages. “Street binge drinking” (consuming a large amount of alcohol in a short time, in the street, at the weekend) is the pattern that young people follow, imitating Anglo-Saxon consumption. It represents a way of integrating into the group, and a means of enjoyment due to the lack of alternative leisure time activities. Of the existing studies on the consumption of alcohol in young people, few analyse the reasons, whose consideration could promote efficient preventive policies, as reflected in the Survey on Drugs in the School Population of 2002. For this reason, this study tries to establish the current state of consumption in Toledo adolescents and the alternatives they proposed, with the aim of making more effective interventions.

**Patients and Methods**

An observational, descriptive and transverse study was carried out in 2 health zones of the Toledo health area in May 2003. The study population was made up of schoolchildren in the third and fourth years of Obligatory Secondary Education and the first year of High School (Bachillerato), between 13 and 18 years old, who were studying in 2 secondary education institutes in Torrijos and one in Toledo city. All were given an anonymous questionnaire, designed ad hoc, which they completed during school hours, with 32 questions—the majority closed—relating to: age, sex, experimental and regular consumption of alcohol, consumption by family and friends, quantity consumed—in standard drink units (SDU); I SDU is equivalent to 10 g of pure alcohol (Table 1)—knowledge and sources of information on alcohol, taking of other drugs (legal and illegal), reasons for the consumption, and the alternatives to “street binge drinking.” The statistical analysis was carried out using the R-SIGMA program, applying the Pearson $\chi^2$ test for qualitative variables and the Student $t$ test for the quantitative ones.

**Results**

Of the 631 adolescents who completed the questionnaire, 6 were rejected for being over 18 years old. There were no refusals to participate in the study. Of the 625 questionnaires which were finally analysed, 298 (47.68%) were male and 327 (53.32%) were female. The mean age and standard deviation was 15.4±1.3 years. The principal results relating to the declared consumption of alcohol are separated by sex and are shown in Table 2. 93.44% (95% Confidence Interval [CI], 91.12-95.19) of those questioned had experimented with drinking alcohol, taking of other drugs, reasons for consumption, and the alternatives which the 13 to 18 years old Toledo adolescents proposed.

<table>
<thead>
<tr>
<th>Type of Drink</th>
<th>Volume</th>
<th>No. of Units</th>
<th>Grams of Pure Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine</td>
<td>1 glass (100 mL)</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>1 L</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Beer</td>
<td>1 small (200 ml)</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>1 L</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Spirits</td>
<td>1 drink (50 mL)</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>1 coffee with brandy</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1 cocktail (50 mL)</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>1 L</td>
<td>40</td>
<td>400</td>
</tr>
<tr>
<td>Fortified (sherry,</td>
<td>1 drink (50 mL)</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>cava, vermouth)</td>
<td>1 vermouth</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>1 L</td>
<td>20</td>
<td>200</td>
</tr>
</tbody>
</table>

in which 50% had done so before the age of 14 years, with no significant differences by sex or environmental origin. The mean age in which alcohol was tried was 13.25 years (95% CI, 13.11-13.39). The age of first trying was earlier in males and in the rural environment (Figure 1). 52.0% (95% CI, 48.0-56.13) stated having been inebriated at some time, without differences by sex, although there was in the environmental origin (Figure 2), a percentage which grew with increasing age (Figure 3). At 16 years, more than half had been drunk at some time, the mean age of the first being drunk was 14.02 years (95% CI, 13.82-14.22).

69.60% drank regularly at weekends (95% CI, 65.84-73.31), especially rum mixed with cola (cubatas) (74.70%), beer (56.56%), and wine (37.47%). The mean amount of alcohol ingested during the whole weekend was 9.65 SDU (95% CI, 8.78-10.52), being higher in males and in the rural environment (Figure 4). The young people from rural areas drank more in bars (67.89%) than in the street (56.53%), while those in the urban areas preferred the street (76.27%) to the bar (45.76%). 8% consumed alcohol daily (95% CI, 6.05-10.48), which was significantly more frequent in males than in females (11.07% vs 5.19%; $\chi^2=6.52$; $P<.05$), with no differences as regards rural and urban environments.

Family consumption was 28.89% and in the friends group it was 90.80%, there being an association between this and the consumption of alcohol at weekends ($\chi^2=56.55$; $P<.001$). 56.06% (95% CI, 54.09-61.97) considered alcohol as a drug, with no differences by sex or environmental origin. 52.09% believed that drinking 4 small beers per day was not much. The problems which they associated with the consumption of alcohol are shown in Table 3. The sources

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**Table 2** Principal Results Related to the Declared Consumption of Alcohol and Separated by Gender

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. surveyed</td>
<td>298 (47.68%)</td>
<td>327 (52.32%)</td>
</tr>
<tr>
<td>Age, mean</td>
<td>15.43</td>
<td>15.36</td>
</tr>
<tr>
<td>Had tried alcohol</td>
<td>274 (91.94%)</td>
<td>310 (94.80%)</td>
</tr>
<tr>
<td>Consume alcohol daily</td>
<td>33 (11.07%)</td>
<td>17 (5.19%)</td>
</tr>
<tr>
<td>Weekend drinkers</td>
<td>209 (70.13%)</td>
<td>226 (69.13%)</td>
</tr>
<tr>
<td>Consumed at the weekend, SDU</td>
<td>12.43</td>
<td>7.12</td>
</tr>
<tr>
<td>Had been drunk at sometime</td>
<td>154 (51.67%)</td>
<td>171 (52.29%)</td>
</tr>
<tr>
<td>Mean age of first being drunk, years</td>
<td>13.79</td>
<td>14.22</td>
</tr>
</tbody>
</table>

*SDU indicates standard drink unit

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**Figure 1** Age when alcohol was tried for the first time, according to age and gender.

**Figure 2** Proportion of adolescents who had been drunk at some time, according to gender and environment

**Figure 3** Proportion of adolescents who had been drunk at some time, by age.

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<table>
<thead>
<tr>
<th>FIGURE 1</th>
<th>FIGURE 2</th>
<th>FIGURE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Percentage</td>
<td>Age</td>
</tr>
<tr>
<td>Male</td>
<td>Female</td>
<td>Urban</td>
</tr>
<tr>
<td>13.04</td>
<td>51.60</td>
<td>39.78</td>
</tr>
<tr>
<td>13.44</td>
<td>52.50</td>
<td>39.09</td>
</tr>
<tr>
<td>13.76</td>
<td>39.28</td>
<td>45.07</td>
</tr>
<tr>
<td>13.18</td>
<td>53.55</td>
<td>60.89</td>
</tr>
</tbody>
</table>

$\chi^2=0.048$; $P>.05$

$\chi^2=5.87$; $P<.05$
As regards the consumption of other toxic substances, 31.92% (95% CI, 27.65-35.02) smoked, the girls more so ($\chi^2=7.37; P<.001$), with a significant relationship between this habit and the consumption of alcohol at weekends ($\chi^2=67.02; P<.001$). Of the illegal drugs most tried, smoking cannabis occupied first place (34.4%), followed by pills (6.86%), cocaine (5.86%), and heroin (1.34%); these types of substances were not consumed by 63.81%.

Among the reasons for drinking alcohol (Figure 5), “enjoyment” is most common, although they started their drinking for curiosity. Of the alternative leisure activities mentioned (Figure 6) were, particularly, “cyber cafés” and sport activities. More than 75% did not know of the existence of programs started by the Government directed at this group.

Discussion

One of the best ways of getting information on the consumption of alcoholic drinks and its reasons are population based surveys using anonymous unsupervised questionnaires. Since alcohol is a legal substance, is socially accepted in our culture and its consumption does not involve any stigma which might determine the sincerity of the responses, except in cases of abuse or dependence, we believe in the internal validity of our study. On the other hand, the majority of studies consulted are in line with that found in ours, except precise data which we believe does not alter the external validation.

The consumption of alcohol is a very extensive habit among young people, with a wide range (43.7%-92.13%) of adolescents having tried it. In our study it was over 93%, which shows an currently increasing trend. The initial contact occurs at 13-14 years, as reflected in the Survey on Drugs in the School Population 2002, although there are some references to below 10 years old. The seriousness of starting this at such early ages lies in the subsequent higher frequency of consumption, the
adoption of other habits of risk and the appearance of organic and/or psychiatric disturbances. The ingestion is excessive, as they exceed 80 g in a short period of time at least once a month, therefore they fall into the group of drinkers at risk, according to that recommended by the World Health Organisation and the PAPPS (Program of Preventive Activities and Health Promotion). With advancing age, the number of drinkers and the amount ingested increases, following a Northern European pattern of drinking large quantities during the weekends in bars, pubs, and discotheques, which explains the frequent drunkenness in adolescents. We did not find significant differences between drunkenness and gender, which made us think that although the consumption is higher (in quantity and frequency) in males, there is a change in female behaviour with alcohol, with a tendency equalise with males during weekends. There are significant differences between rural and urban environments as regards experimenting, number of drunken episodes and places to drink, perhaps due to more permissive opening hours and cheaper drinks in the former. This fact highlights that the risk behaviour of adolescents is influenced by the environment. There is no doubt that to have friends who drink is a significant factor associated with the consumption of alcohol in young people. Whereas, this is not associated with family drinking, but it is with the family structure, as the perception of dissatisfaction in this environment and/or alcoholism in any of the parents has been reported as causal factors of the alcohol abuse in adolescents. However, although the first consumption takes place in the family environment during parties or celebrations, the determining factor is the influence exercised by their group of equals. We are pleased that the school and the family are put forward as sources of information on alcohol, and the communications media for its effects, since, although these may be powerful health brokers, sometimes they create social alarms on being the “season” against it and require the close collaboration of the health authorities to offer truthful information. Even then, the information for adolescents is insufficient as almost half of them believe alcohol is not a drug. However, they do show interest in receiving information, an aspect which coincides with the opinion of the Spanish population as reflected in the Eurobarometer, which advocates information campaigns (54.9%) as the first measure in the fight.

What Is Known About the Subject

- The consumption of alcohol is a widespread habit among young people, starting earlier and earlier, with a progressive increase in the number of drinks and the quantity consumed as they get older.
- The most characteristic pattern of consumption is Anglo-Saxon, during the weekends.
- The most influencing factor is drinking due to group of friends.
- The belief that alcohol is a drug constitutes a protective factor for its consumption.
- The principal reason for its consumption is enjoyment.

What This Study Contributes

- The tendency for females to become the same as males in the way they drink alcohol at weekends.
- Computer and sport activities, instead of “street binge drinking” were among the proposals highlighted by young people.

The adolescents, a high risk group and highly vulnerable to the damaging effects of alcohol, have to know the individual, family and social repercussions of its consumption. The health authorities have not adopted a more active attitude against the problem, as the consumption we found is similar to that in the general population as primary prevention measures and diagnosing alcohol abuse as soon as possible by means of questionnaires or semi-structured interviews on frequency/quantity in secondary prevention, and intervention by counselling, without forgetting the programs on decreasing the dangers and risks. Parents, as central figures of intervention, must create a positive family atmosphere with a rational, controlled and a less permissive model as regards the consumption of alcoholic drinks, which has been shown to be effective, to which should be added global policies against alcohol which will help the efforts of teachers, parents and health...
authorities to achieve the proposed objectives as regards young people and alcohol.
In this way, all the alternatives which the young people propose are feasible, if we have the collaboration of the local and regional Administrations. A major effort is all that is needed to disseminate them and make them more accessible to young people.
Finally, we believe that the effectiveness of all the interventions directed at the prevention of alcohol consumption should be studied, with the aim making more valid tools available to reduce and delay it.

Acknowledgements
To Yolanda Sánchez del Viso and Luis Campillo Marcos, for their participation in the collection of information.

References
Adolescence is the maturation—biological, psychological and social development—stage of the person and according to some authors, begins between 10 and 19 years. The adolescent has a poorly defined social function, with doubts and instability, and greatly influenced by persons of a similar age. In this stage, young people acquire their lifestyle which will be maintained for the whole of adulthood.

The consumption of alcoholic drinks is common practice in our society, where many adolescents have had contact with these substances. Young people progressively acquire the habit for several reasons: consumption in the environment, including the family and group of friends—the influence of this latter group is greater than that of the parents—, advertising, and curiosity or the search for sensations.\(^1\)\(^2\) This consumption is associated with two aspects of social learning: imitation and strengthening; thus, the consumption of alcoholic drinks is seen as a channel of integration into the family or the group. The media and the advertising messages contribute to the favourable climate of starting to drink.

**Epidemiology**

According to the directives from WHO, abstinence should be the norm until 18 years, but epidemiological studies show a decrease in the age of starting to consume alcoholic beverages, around 9-10 years, consumption in the family environment predominating (parties and celebrations). Later, during adolescence, drinking is normally carried out within the confines of the group of friends or companions. There are differences in consumption between sexes, with a predominance in males; also notable is the increasing consumption with the increase in the age of the adolescent. The consumption of alcohol is also generally associated with that of tobacco, which facilitates the consumption of other drugs.

In recent years a change in the pattern of alcohol consumption by young people has been documented, in which despite some indicators decreasing, such as daily consumption, a more intense consumption appears during the weekend, which is frequently associated with the consumption of other addictive substances. These new forms of compulsive consumption, which around 3% of young people between 15 and 25 years practice and admit getting drunk every weekend, are shared by both sexes, and a tendency to equality has been observed in the indicators of problematic drinking in recent years.\(^3\) The indicators of problematic drinking in adolescents are considered to be: drunkenness, consumption of 4 or more drinks on one occasion, buying alcohol, and consuming alcohol on weekdays.

Surveys in the school-age population are of great use for monitoring lifestyle habits, as well as facilitating the study of their determining causes.\(^3\) Judging by the results obtained by different authors and in several environments, the time has now arrived to carry out prevention activities.

**Primary Prevention**

Primary prevention of alcohol consumption consists of a group of measures or activities directed at preventing or...
delaying the start of consuming this substance, mainly directed at the adolescent ages. These measures are normally of a legislative, economic, and educational nature. The legislative and economic measures are aimed at restricting the distribution to certain population groups (minors). The failure of restrictive measures is evident, looking at the accessibility which the adolescents have to alcoholic drinks. Educational measures try to generate and strengthen healthy lifestyles.

The age of taking the first drink is related to the frequency, the quantity ingested and the number of problems associated with alcohol in later stages of life. For this reason, to delay the starting age of this habit must be considered a success.

In the medical literature on this topic, several lines of urgent action are defined to achieve the proposed objective:

- Facilitate information: with the hope of achieving a change in behaviour directed at preventing contact with the substance. Likewise, the threat or fear of the counterproductive effects obtained due to the rash nature of the adolescent. They do not seem to be a very useful strategy since they increase the knowledge of alcohol but they do not manage to prevent its consumption.

- Improve self-esteem: the identification of a lower level of self-esteem in consumers of addictive substances has served to promote activities aimed to improve it.

- Alternatives to consumption: the carrying out of unspecified, alternative activities, such as sports, community, civic or recreational activities, seek to prevent the consumption of alcohol. They have been formulated, particularly for groups considered high risk.

- Skills to resist the social pressure: since social pressure (family, friends, advertising) is a determinant factor in starting to drink, certain programs try to provide the adolescent with the skills necessary to identify and overcome situations associated with the consumption of alcohol. They normally form part of programs integrated into the school curriculum, with active participation by teachers and pupils, and with some health care support.

Prevention and detection of alcohol abuse among adolescents is an unavoidable task of health professionals.

**Intervention in the Clinic**

Although adolescents infrequently come to health centres, we are obliged to act to prevent and detect alcohol abuse. The clinical interview with the adolescent has to guarantee confidentiality, maintaining a pleasant and empathetic atmosphere. Referring to the consumption of alcohol by the friends group can help to introduce questions on his/her own consumption. We have to make the most of any contact with them, to get to know the consumption by the parents during childhood and, later, of the adolescents themselves and their environment, to detect use and abuse of alcohol. When alcoholic drinks are present in the family environment, it is not difficult to introduce questions on their own consumption in front of their parents.

The suspicion of a problem related to alcohol abuse may require an interview with the adolescent. In the adolescent who has not yet consumed alcohol, we will strengthen the need to maintain this behaviour, recommending that the parents delay the start of drinking alcohol in the family environment as long as possible. The permissiveness in this area is associated with a higher tolerance in the friends group. For the adolescent it is preferable to transmit information on the effects or problems of drinking alcohol in the short term—breath smelling of alcohol, accidents, etc.—, since later problems normally do not worry them—cirrhosis, etc.

**Intervention in the Community**

The prevention of alcohol use among adolescents must form part of the community activities of the primary care teams. School is an ideal place to carry out activities promoting healthier behavioural habits and the primary prevention of consuming addictive substances, as well as alcohol and tobacco, since this takes place in an important and fundamental period of learning. Obligatory education makes it easier to access entire cohorts in a critical stage of their maturing process.

Activities in school must be based on promoting and giving support to the educational professionals, who have direct responsibility of the prevention programs in the school environment. The role of the health professionals should consist in acting as mediators for the promotion of health in the adolescents, and contribute to the awareness of society as a whole. A prevention program in school should integrate the majority of the following aspects:

- Activities developed in school and included in the school curriculum.
- Active participation by teachers and pupils.
- Moderate health professional support.
- Centred on pupils between 10-13 years.
- Joint prevention of tobacco and alcohol consumption.
- Objective: acquiring of individual skills to resist the social pressures which cause the taking of substances.

The choice of the line of prevention has to be based on evaluated educational programs and with positive results. The effectiveness of health promotion activities should reduce the future prevalence of certain risk factors, which should be beneficial in the medium-long term for the whole community. A delay in the start of consumption constitutes a desirable objective of prevention, since it is accepted that the delay in starting to consume alcoholic
drinks decreases the risk and improves the prognosis of having alcohol dependency in the later stages of life.

References