

# Adaptation and implementation of “Planet Youth Substance Use Prevention Model” in Chile

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*Consumption of substances in adolescents is highly prevalent in several regions of the world, specially in Chile. Its prevention is a big challenge for public health. This article describes the Icelandic model of consumption prevention of substances in adolescents “Planet Youth”. Its adaptation and feasibility of implementation in Chile, as a first experience in Latin America. This community model is focused on environmental prevention and health promotion in children, girls and adolescents. It is based on a timely local diagnosis of risk/protection factors, in cooperation with the local authority and the academy. Six communes of the Metropolitan Region in cooperation with Universidad de Chile and the Icelandic Centre for Social Research and Analysis started its implementation in 2018. The Icelandic survey was translated and adapted and it was applied to 7,354 students of second grade. Results were used as a feedback for schools and municipalities, in order to work in the modification of the main risk factors and protection. In 2020, the process has required some adaptations, due to COVID-19 pandemic. The discussion is regarding relevant sociocultural factors when adapting strategies based on international evidence that is transferred to different country. Implementation of the Planet Youth model is feasible in Chile, and it offers a great opportunity to prevent consumption of substances in young people, in an effective manner in South America.*

*Key words: Prevention, Consumption of Substances, Adolescents, Community, Environmental Prevention.*

## INTRODUCTION

Alcohol and drugs consumption is a significant social/health problem all around the world. Alcohol generates a high burden of disease in years of life lost due to disability and death<sup>1</sup>, while marijuana is the most consumed

drug around the world<sup>2</sup>. Americas is the region with the highest annual prevalence of marijuana consumption, with 8.8% in total population between 15 to 64 years old<sup>2</sup>. USA, Bolivia, Chile and Uruguay, have increased marijuana consumption during the last few years. Besides, in South America, cocaine is the second drug

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for which people search for treatment as main substance<sup>2</sup>.

In South America, Chile has high prevalence of substances consumption in adolescents. Last year alcohol consumption in school children was 57%, during the last month was 31%, where 62% of them had drunk 5 or more drinks in just one time<sup>3</sup>. Regarding marijuana, prevalence of consumption during the last year increased from 14.8%, in 2001 to 30.9%, in 2017<sup>3,4</sup>. While around the world, 4.7% of adolescents between 15 to 16 years old has consumed marijuana the last year<sup>2</sup>. Because of its prevalence and associated consequences, consumption of alcohol and other substances generates a high social/health cost<sup>5</sup>.

Adolescence is the period of life where most frequently substances consumption is started<sup>6,7</sup>. At this time there is high vulnerability to experiencing higher risk of disorders due to use of substances, with more severe effects and higher sensitivity to neurotoxicity<sup>8</sup>. Due to the high prevalence of substances consumption in adolescents and the impact these have at a stage of high vulnerability, it is important to prevent consumption in adolescents<sup>9</sup>. Identifying and addressing the most relevant risk/protection factors for consumption allows to plan correct prevention strategies<sup>10</sup>. However, these factors may vary in different societies, countries and even between communities in the same country, according to various sociocultural determinants. Therefore, a local/adapted approach to the needs of a specific community must be considered in prevention.

This article is aimed to describe a community prevention model developed in Iceland. The initial experience of the adaptation and feasibility process to implement it in six communes, in Chile.

### **The Icelandic Model**

Iceland has implemented a prevention process of substances consumption in adolescents, by addressing specific risk/protection factors, based on local data. In this way, a community prevention model has been proposed<sup>11</sup>. The Icelandic Centre for Social Research and Analysis (ICSRA) implemented a juvenile welfare survey, every year, from the 90s. It is called "Youth in Iceland", addressing

substances consumption, exploring protection factors, such as support, monitoring and parental communication, school welfare and participation in extracurricular activities, such as sports, and risk factors, such as non supervised free time, life styles associated to parties, and consumption among peers, among others<sup>12,13</sup>. Among the protection factors addressed in Iceland for primary prevention at parental level are: parents have to know with whom and where their children are. They have to know their children's friends and their respective parents. Additionally, participation of adolescents in organized sports activities becomes a protection factor; On the other hand, a lifestyle with parties is a risk factor<sup>14</sup>. ICSRA has disseminated this prevention model implemented in Iceland to various places around the world. It is called Planet Youth (see website <https://planetyouth.org/>).

Recently, the ICSRA team<sup>15,16</sup> has published 5 Guide Principles of the Icelandic Model (Table 1) and 10 stages (Table 2) for implementing this prevention model.

### **Planet Youth, Chile**

In 2018 a joint cooperation started among six municipalities (Colina, Las Condes, Lo Barnechea, Melipilla, Peñalolén and Renca), ICSRA and the University of Chile in order to implement Planet Youth model in Chile.

The prevention strategy was based on Iceland Model, Planet Youth in Chile (hereinafter, PY) is directed to the whole adolescent population of every commune adhered to the formal educational system. In order to evaluate substances consumption in adolescents, some cross cutting surveys were made on high school students of second grade (Second high school grade, in Chile), to be performed every 2 years. During the implementation and adaptation process of the PY model in these six communes, three main parties have been coordinated: ICSRA, every Municipality and University of Chile. Every Municipality defined a person liable and a local prevention team. University of Chile team is in charge of performing the adaptation process of the model. It will provide technical support to all communes and will be in charge of coordinations between ICSRA and every Municipality, in order to facilitate

**Table 1.** Guide Principles Icelandic Planet Youth Model

1. To apply an approach on Primary Prevention, designed to improve Social Environment.
2. To boost Community participation and use schools as natural centers of the Community efforts aimed to support Health, Learning and a successful life for children and adolescents.
3. To involve and empower all members of the community on practical decision making, using data and accessible/high quality local diagnosis.
4. To integrate researchers, politicians, professionals and members of the community in a unified team, devoted to solve complex problems of the real world.
5. To match the scope of the solution with the scope of the problem, including interventions with long term emphasis/efforts in order to properly organize resources of the community.

**Table 2.** Stages of Icelandic Planet Youth Model

Stage 1: Identification of the local team local, development and capacity building
Stage 2: Identification of local funding, development and capacity building
Stage 3: Planning on how to collect data, and community involvement
Stage 4: Data collection, processing, including diagnosis based on the data
Stage 5: Strengthening participation/involvement of the community
Stage 6: Dissemination of Results
Stage 7: Implementation of Community objectives and other organized responses before results
Stage 8: Alignment between policies and practice
Stage 9: Immersion of children and adolescents en environment, activities and primary prevention messages
Stage 10: Annually repeat stages from 1 to 9

implementation of the PY model. Some international understanding memoranda were signed among every Municipality, ICSRA and University of Chile. This cooperation devised a five-year-plan with application of PY surveys every two years plus delivery of results to schools and municipalities with recommendations from ICSRA aimed to lead local implementation of the community PY

prevention plan. This model does not offer neither structured nor manual interventions, but it has principles and recommendations municipalities to implement it; therefore, specific preventive strategies and activities are applied, according to the definitions made by every Municipality.

**Surveys**

Between January and March, 2018 the

coordinating of the University of Chile translated the original ICSRA survey. The community teams and the Team of experts of the University of Chile made a review of the contents. From the Linguistics and Semantic point of view the adaptation of the survey was validated in three volunteer Chilean adolescents who belonged to the same age group than the goal population. They attend an Adolescents Mental Health Center (SERJOVEN). The final version was approved by ICSRA and by the University of Chile. It has 77 questions. Printing of the questionnaires, packing, distribution and collection was made, according to ICSRA directions<sup>13</sup>.

The survey allows to create a diagnosis for each commune and school on substances consumption of school children and factors related with consumption. Private/Municipality schools of the communes were contacted by the Municipality in order to invite them to voluntarily participate. A passive informed consent was made to be sent to parents. In this way parents could explicitly accept or reject their participation. Additionally, a consent document for students was made, so they could accept or reject their free participation, if they decided. Both the consent document and the acceptance document were approved by the Ethic Committee of the Clinic Hospital of University of Chile (OAIC 981/18).

Some teams were made up at the Municipalities, in charge of implementing the survey in every commune, in coordination with the team of the University of Chile. The Municipality teams were trained about the application procedure of the PY survey in schools. They, in turn, trained teachers in every school. Some record documents were developed to systemize the survey application process, to perform follow up and to control the process. The survey was applied the same week, in June, 2018 at the schools that participated in the six communes.

### **Local Prevention**

After 4 months since the survey was applied, ICSRA delivered the reports with the results to the municipalities and schools, along with the anonymous data base to each municipality. In 2018, 7,354 school children from 117 schools participated, with a response rate of 86.9%,

being 51.4% men and 48.6% women.

The team of the University of Chile supported the communes on the prevention process, based on the results reports and the recommendations made by ICSRA. The following tools were developed for the work with the communes:

- Definition of cross cutting common objectives among the six communes, considering their sociocultural/management differences:
  1. Reinforce community/ management/ administrative/policies capabilities for prevention within the commune.
  2. Reduce access to alcohol and other drugs to underage children.
  3. Increase parental involvement and eliminate normalization of alcohol consumption and other drugs in underage children among parents and Children's representatives.
  4. Promote a rich environment by means of organized recreation-extracurricular activities.

- Use of the Logic Framework: a proposal to design the prevention plan, based on the Logic Framework methodology, which allows to plan, do follow up and evaluate programs<sup>17</sup>.

- Index of community prevention: A Swedish instrument<sup>18</sup> was translated and adapted for monitoring the level of development of local prevention, within 5 dimensions: personnel and budget, prevention policies, cooperation, alcohol permits and fiscalization, and prevention activities. This instrument provides a simple measure to lead preventive work and is comparable among municipalities.

- Parental Commitment: An Icelandic instrument was translated and adapted with recommendations for promoting positive relationships between parents and children, increase participation in school/recreation activities, and to state clear limits when raising children (3 different formats for students, from 1st grade to 5th grade, Basic School; from 6th grade to 8th grade, Basic School; and from 1st to 4th high school grade). Additionally, a methodology proposal was included to implement this tool in schools.

Apart from these tools, and other adopted strategies for the communes, based on recommendations made by ICSRA. Each

Municipality must develop specific activities according to their reality and context, within the PY model principles. Likewise, the general framework and the community prevention principles of the PY model allowed that the various prevention actors of the communes could organize their own work in a coordinated manner, including prior prevention activities and adding new strategies and activities focused on the identified and prioritized needs, with a flexible work, managed by every commune.

In 2020, due to the COVID-19 pandemic, the survey was adapted to be applied in an electronic format, in an abbreviated version, including questions about the pandemic and its impact on participants. In November 2020 the same 6 communes participated in the survey, with a total of 5,528 surveys, and an average response rate per school of 72,8%, in 96 schools. Results were reported to every school and commune, in reports prepared by ICSRA in order to lead the next prevention strategies.

## DISCUSSION

The implementation process of the Planet Youth model in six communes was executed in order to reduce substances consumption in adolescents, in a plan that is currently under execution. This has been a unique experience for prevention of substances consumption in adolescents, in Chile, as it encompasses an amount of population with the municipalities. It needed a close cooperation and coordination among: police and administrative authorities of every commune, the teams of professionals in prevention who lead the work with the community and the Academy providing orientations made by the team of the University of Chile and ICSRA. According to this experience that we have reported, the adaptation of this tool seems to be promissory as a prevention model, based on international evidence to be implemented in some countries in South America.

As the PY model does not provide structured interventions, to develop and to adapt support tools for local prevention, according to the specific needs of the municipalities has allowed to implement prevention, which is useful for supporting local teams.

The Icelandic prevention model is focused on modifying the social environment by involving the community, according to a local diagnosis on consumption in adolescents and its associated factors. The model is based on local data feedback on consumption of adolescents for the community to be involved and modify the identified risk/protection factors. An essential aspect in the implementation described in the Chilean experience has been the role of the community authorities when addressing these topics and how thanks to that compromise some worktables from various areas have been implemented and cooperation among the various municipal Departments and other relevant actors, all of them with a common goal. One of the main challenges involved in this process is related with the transference of a model that has proved to be effective in a different sociocultural context, as the model was designed in a country with characteristics different from Chile. In our country, communes with various socioeconomic characteristics are executing this model, which is quite relevant, considering the high variability in access to resources existing among the various communes in our country, and how this may hinder a successful implementation of the Icelandic experience in a different context.

Some strategies recommended by ICSRA are strongly focused on the use of free time and on the role of parents when raising their children. Regarding the execution of consumption-free activities, Bickel W et al,<sup>19</sup>, have stated that, according to the Economic Conduct Theory, the reinforcement alternatives competing against substances consumption increase the cost of opportunity of substances consumption, thus decreasing consumption; therefore, inversely, people with few alternatives to substances abuse have fewer possibilities to change their consumption successfully. To offer alcohol/drugs-free activities, different from consumption where people can participate, fell motivated and enjoy will act as a reinforcing activity which will reduce probability of substances consumption<sup>20</sup>.

Regarding parentality, the authoritative parental styles (high expectations, clear rules, and support) are protection factors; on the other hand, parents not involved will have adolescents

more keen to consumption<sup>10,21</sup>. Likewise, peers and relatives significantly influence on what is considered as normative, healthy and acceptable for adolescents<sup>10, 22</sup>; therefore they influence on consumption behavior. In the context of social and legal changes about marijuana consumption, parents and health teams are facing a new challenge with adolescents, regarding how to discuss and create rules on consumption<sup>10, 23</sup>. The low parental rejection of marijuana consumption has been correlated with an increase of consumption in Chilean school children<sup>4</sup>.

in the case of Chile, it has been described that family rules could be more important than social rules for people<sup>24</sup>. This is aligned with the importance of parentality which has characterized the Hispanic population when compared with that of Caucasians<sup>25</sup>. Therefore, a family and robust approach, oriented to boost proper/involved parentality could result more appropriate for this culture than regulations and social control.

No doubt, socio demographic and economic aspects, capability of the municipalities to boost good use of free time in young people, and parentality factors are related with sociocultural aspects. For a proper implementation and adaptation of international experiences some sociocultural factors must be taken into account as they influence on substances consumption, and therefore on prevention<sup>26</sup>. Strategies based on international evidence must be properly transferred to a local context. Apart from the foregoing, some other sociocultural locales factors must be included in the adaptation process, such as opinions, participation and experience of the people involved and of the professionals who work on prevention within the territory. Proper adaptation of prevention strategies could offer better results, higher acceptance and low difficulties when implementing, just as it has been described in the case of two other preventive interventions culturally adapted for South America (keepin' it REAL and Families Preparing the New Generation) in USA and México<sup>27, 28</sup>. Other experiences of culturally adapted preventive programs are the program "Habilidades para la vida"<sup>29,30</sup>(skills for life), "Familias unidas"<sup>31</sup> (United families) and Comunidades que se

cuidan<sup>32,33</sup>(Communities taking care).

The magnitude of substances consumption in adolescents, their costs and consequences demand to build scientific evidence on prevention of substances consumption in a Latin American context, as, in general, most investigations come from high income countries<sup>34,35</sup>. Differences in sociocultural context make necessary to strengthen and develop investigation in other places where these must be applied. the PY model may offer a great opportunity to effectively prevent substances consumption in young people, and its pilot implementation in six communes in Chile has caused great interest in other countries of South America as well.

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