



# Creating a Drug Prevention Program Targeting Inhalant Use in Thai Adolescents



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This report represents the work of four WPI undergraduate students and three Chulalongkorn University students submitted to the faculty as evidence of completion of a degree requirement. WPI routinely publishes these reports on its website without editorial or peer review. For more information about the projects program at WPI, please see: <http://www.wpi.edu/Academics/Projects>.

## Abstract

The abuse of inhalants among young adolescents is a rising public health concern not sufficiently addressed in Thailand. The lack of education in schools regarding mental and physical effects of inhalants has contributed to this health concern. We worked with the SATI foundation and the Hub in order to recommend a way of raising awareness of inhalant use and its detrimental effects. To accomplish this, we conducted interviews of teachers in schools, surveyed level of inhalant knowledge in adolescents, and closely examined engaging techniques of drug prevention programs locally and globally. This work culminated in a website deliverable that contains several forms of media targeted towards Thai adolescents, is easily shared, and has the underlying message of volatile substance awareness.

# CREATING A DRUG PREVENTION PROGRAM TARGETING INHALANT USE IN THAI ADOLESCENTS



Inhalant abuse is a rising problem that affects youth worldwide. Common products such as spray paint, glue, thinner, and nail polish are transformed into drugs, that when inhaled have destructive effects on a person's health. Short-term effect of inhalant use include slurred speech, dizziness, hallucinations, blackouts, and vomiting while long-term abuse can lead to organ damage, hearing loss, bone marrow damage, and exacerbation of mental health disorders. The effects are often unrecognized by even the people closest to the abuser, resulting in difficulties solving the issue. Unfortunately, without proper awareness of the effects of inhalant abuse, the persistence of this public health concern is inevitable.

Education is a key factor in preventing drug abuse, and without it, the number of abusers could increase. Without a proper support network, some youth find that their only ways to cope with trauma, poor self-esteem, suicidal tendencies, and psychiatric conditions are through the use of drugs (Baydala, 2010). Homeless adolescents can be susceptible to these conditions. In the city, these children must sometimes turn to crimes to survive.

The National Institute on Drug Abuse (NIDA) is a respected federal scientific research facility under the US Department of Health and Human Services. According to NIDA, the best way to combat drug use is by way of prevention.

### **Drug prevention programs should:**

- Build adolescents' strengths/skills that are incompatible with substance use.
- Connect adolescents to at least one caring role model
- Short-circuit typical peer norms so that adolescents view avoidance of alcohol, tobacco and other drugs to be "cooler" than using these substances.

NIDA evaluates programs based on structure, delivery, and content. An example of a NIDA approved program is the Life Skills Training, which supports and educates the audience.

Our sponsor, the SATI Foundation, is a non-profit organization whose mission and values are focused on the improvement of the welfare of under-served Thai communities. The Hub is an organization working with the SATI Foundation and offer assistance to nearby homeless adolescents. The Hub is located in the area surrounding the Hua Lamphong train station in Bangkok, which is known for having a large homeless population (Sukprasert, 2016). A major problem faced in the Hua Lamphong area is inhalant abuse among adolescents.



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## Goal and Objectives

The goal of this project was to develop an online inhalant awareness program to assist adolescents of Hua Lamphong with personal development, self-confidence, overcoming adversity, and the ability to resist drug abuse. We accomplished four objectives to reach this goal, which were:

### **1. Assess past and existing international and local drug prevention programs' successes and failures**

Assessing drug prevention programs demonstrated how to design an effective program for the SATI Foundation so that we could avoid common pitfalls while duplicating successes. We assessed the strengths and weaknesses of each type of program based on their structure while reflecting on our target audience and determining the best approach using criteria developed by NIDA.

### **2. Evaluate how online media campaigns have been successful**

We evaluated online media campaigns in order to determine how they achieved success and whether they would be applicable to the goal of the project. We identified the targeted audience, how they presented their campaign, and how it was received.

We surveyed 88 local adolescents to determine beneficial characteristics for our program, focusing on how they spent their time online. Once our campaign was developed, we received feedback from adolescents at the Hub, school children, and Chulalongkorn students. This data evaluated the effectiveness of our awareness program.

### **3. Identify the available resources, such as counseling, to support the target audience**

In order to achieve this objective, we collected information through a semi-structured interview with the founder of the SATI Foundation. We also analyzed local recommended programs. However, the local resources that we researched either do not cover the Hua Lamphong area or are too expensive or time constraining for the street adolescents.

### **4. Develop an inhalant abuse awareness program that impacts the local Hua Lamphong area and is capable of extending more globally**

By interviewing the adolescents at the Hub, and surveying the schools around Hua Lamphong, we determined the important components for our program, including what type of social media adolescents use most often, what online activities they enjoy the most, and what they lacked in inhalant knowledge.



Fig. 1: Saipanya survey



Fig. 2: Debsirin survey



Fig. 3: Interview with health teachers

## Key Findings

**Inhalant knowledge:** Adolescents had trouble identifying inhalant examples and effects. Over 20% incorrectly answered “Menthol substance” as an inhalant. Although damage to the nervous system was the most commonly identified side effect, only 11% of the students were able to recognize it. We found that inhalants were not the priority in the curriculum, leaving adolescents more susceptible to inhalant abuse.

**Online activities:** A large majority of adolescents in the schools and at the Hub described their social media usage as more than once per day. Watching videos was the most preferred activity, followed closely by sharing pictures. In addition, we learned that some of their preferred content includes funny and educational aspects. All adolescents interviewed expressed their passion towards learning new things and recreational activities.

**Drug prevention programs:** Based on the criteria outlined from NIDA's guide to building effective prevention programs, Life Skills Training (LST) and Above the Influence (ATI) scored the best out of the five programs, which concentrate on helping adolescents through their daily struggles. Based on the success of these programs, we observed that just providing drug information is not always an effective approach to solving the problem.



Fig. 4: Mobile website homepage

## Deliverable

To showcase inhalant facts and promote alternatives to inhalant use, we created a website and shareable media components for our target audience. The website itself had factual information to correct the common misconceptions of inhalant abuse that we found through our research. Throughout the text, pictures and animations are used to attract attention of visitors to the website and increase inhalant abuse awareness. We also created a personality and talent quiz to engage the adolescents. These talents lead to some recommended activities, in picture based tutorials or videos, that are fun and can promote personal development. The activities are also to provide alternatives to inhalant use.

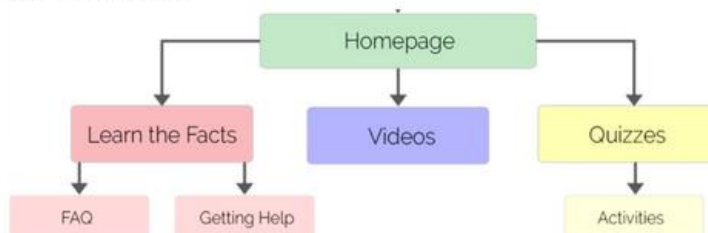


Fig. 5: Website components



## Future considerations

In order to engage the audience, it is necessary for SATI to periodically update the website and YouTube channel with new material. The newly created material would mostly consist of activities videos, animations, and images.

We also recommend that SATI and the Hub continue creating a partnership with the Volunteer Chula club by contacting the head of social development, Kittkun Samherpak. They are an organization on Chulalongkorn's campus focused on improving the community through short term volunteer events. They are very invested in expanding materials for the website. This will require communication by SATI to confirm creation of materials.

The existing local resources that we researched do not have enough resources to help more people, are too expensive, or have problematic curriculum. We were able to find one English based organization that could be a support system for the Thai adolescents called 7 Cups. We developed instructions in Thai to allow adolescents to access Thai counselors. We do not believe that local resources will develop enough for the target audience in the near future and that this topic should be revisited in a few years.

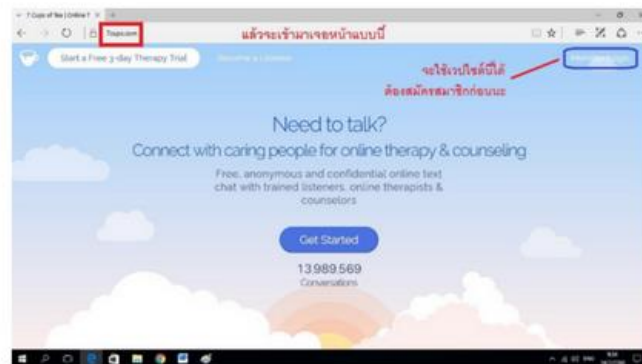


Fig. 6: 7 Cups Thai instructions

## Conclusion

Finding a way to successfully capture the attention of Thai adolescents and spread awareness of inhalant abuse was the main goal of this project. Our recommendations highlight ways that could potentially raise inhalant awareness in Hua Lamphong while extending globally. This project should improve the quality of life for homeless adolescents. By suggesting potential activities and passion, we can encourage the adolescents towards a better future and away from drugs. All in all, we aimed to give them the tools for furthering their future. With the proper facilitation of this program, it will become a reality and provide support for countless adolescents.

